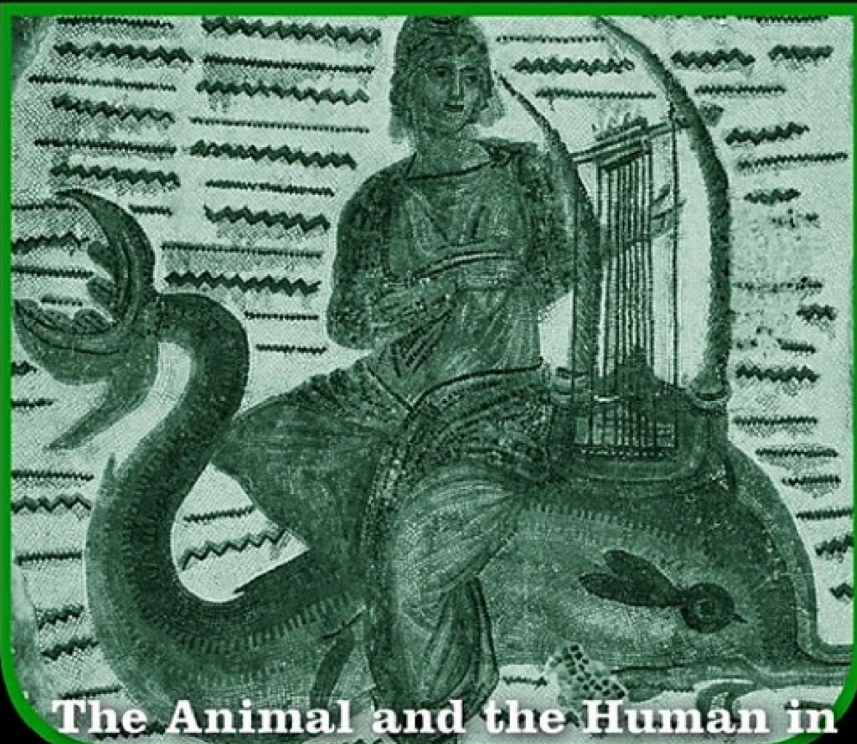




The Animal and the Human in Ancient and Modern Thought

The 'Man Alone of Animals' Concept

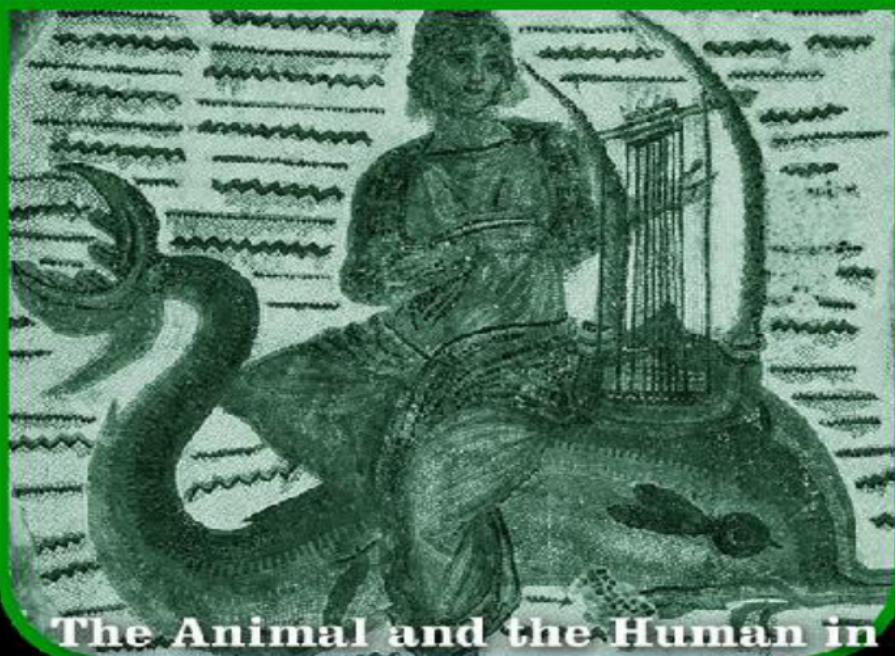
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The Animal and the Human in Ancient and Modern Thought

This is the first book-length study of the “man alone of animals” *topos* in classical literature, not restricting its analysis to Greco-Roman claims of humans’ intellectual uniqueness, but including classical assertions of their physiological and emotional uniqueness. It supplements this analysis of ancient manifestations with an examination of how the commonplace survives and has been restated, transformed and extended in contemporary ethological literature and in the literature of the animal rights and animal welfare movements. Author Stephen T. Newmyer demonstrates that the anthropocentrism detected in Greek applications of the “man alone of animals” *topos* is not only alive and well in many facets of the current debate on human–animal relations, but that combating its negative effects is a stated aim of some modern philosophers and activists.

Stephen T. Newmyer is Professor in the Department of Classics at Duquesne University, USA. He is author of several books and articles, most recently *Animals, Rights, and Reason in Plutarch and Modern Ethics* (Routledge, 2006) and *Animals in Greek and Roman Thought: A Sourcebook* (Routledge, 2011).

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Stephen T. Newmyer

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For Sophie

gentle loving Other

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Contents

Preface

- 1 Introduction
- 2 First Steps Toward a “Man Alone of Animals” Concept in Greek Thought
- 3 “Man Alone of Animals”: Three Classic Ancient Texts
- 4 What Makes Humans Human? The Reign of *Logos*
- 5 The Importance of Being Rational: *Logos* and Moral Value
- 6 Body Image: Physiology and the Rise of Civilization
- 7 Animal Affect: Is “Man Alone of Animals” Emotional?

Bibliography

General Index

Index locurum

Preface

As early as the eighth century bce, Greek philosophers speculated on the nature of the human animal and on humans' relationship to other animals.¹ Their attempts to define the human being frequently led them to isolate capacities and endowments that they declared to be unique to humans. In his study of the development of anthropocentrism among the Greeks, classical scholar Robert Renehan observed that, by the fourth century bce, the definition of "man" as a rational animal differing from other animals because of his intellectual faculties was regularly encountered in philosophical texts. This stock definition, endlessly repeated, is in Renehan's view less interesting in itself than are the numerous observations concerning various dimensions of the human intellect that the Greeks set forth in phraseology so formulaic that, taken together, they constitute what he has termed "a distinct *topos*, which one might describe as the 'μόνον τῶν ζῴων ἄνθρωπος' [*monon tōn zōiōn anthrōpos*,' 'man alone of animals'] *topos*."² Enumerations of specific examples of human uniqueness that occur in Greek authors, Renehan argues, so often employed the verbal formula "man alone of animals" to distinguish the nature of man from that of other animal species that the phrase itself became a cliché in Greek and eventually in Roman philosophical and scientific literature.

The vast majority of the "man alone of animals" claims examined in Renehan's study pertain to aspects of man's *intellectual* make-up in his status as a rational creature: man alone of animals, it was variously claimed, has reason, has memory, has beliefs, has an articulate language, has a self-image and so on. In addition, Renehan devotes brief attention to what he calls "anatomical and physiological features which are peculiar to 'man alone of animals.'"³ A third type of the "man alone of animals" claim advanced by Greek authors, that which pertains to man's *emotional* dimension, scarcely figures in Renehan's analysis. Nor does he take note of the small but vocal group of ancient thinkers who raised objections to claims of the "man alone of animals" type, whether made in connection with man's intellectual,

physiological or emotional properties, and who maintained that differences between human beings and other animals should be viewed in at least some cases not as a matter of “all or nothing,” but rather as a question of degree, and that such differences may best be considered quantitative rather than qualitative in nature.

Just as Renehan’s analysis takes minimal account of ancient discussions of the physiological and emotional characteristics of the human being, so does he totally leave out of discussion post-classical assertions of human uniqueness. The present volume seeks to remedy this shortcoming by offering an analysis of the power and persistence of the ancient formula “man alone of animals,” used in assertions of human uniqueness, by examining how it was born and nurtured, how it was applied and at times rejected by classical authors, and how it survives and influences discourse on human–animal relations in the twenty-first century. Although Greco-Roman views on the *intellectual* advantages enjoyed by “man alone of animals” have been commented upon by scholars in a variety of contexts, classical pronouncements on the *physiological* and, especially, on the *emotional* dimensions of human beings have been slighted by scholars despite the importance of their contribution to a complete picture of the classical view of the human animal vis-à-vis other species. I hope to show that the ancient “man alone of animals” formula, restated, transformed and extended, is alive and well today in the debates of philosophers of cognition, ethicists, neuroscientists and cognitive ethologists, those biologists who investigate the mental lives of non-human animals.⁴

Particularly noteworthy, in discussion of the afterlife of this ancient verbal formula, is the striking degree to which classical arguments and examples resurface in twenty-first-century philosophical and scientific discourse relating to human–animal interactions. Attention to modern applications of the “man alone of animals” formula has more than mere antiquarian interest. It is scarcely an exaggeration to state that two millennia of disregard for and maltreatment of non-human animals by human beings have been influenced and often justified by appeals to assertions of the “man alone of animals” type by proponents of an aggressive faith in what is often labeled “human exceptionalism,” and to maintain that the work of some animal advocates in various disciplines has in recent decades been inspired in part by a desire to combat the negative effects of this mindset upon the lives of non-human species.

I do not claim to provide in this volume a general history of appearances of the “man alone of animals” formula since I concentrate on its manifestations in classical antiquity and in debate and discourse

on human–animal relations in the twentieth century and into the present century. Nor do I attempt to catalogue and discuss every extant ancient appearance of the formula, whether in reference to human beings’ intellect, physiology or emotions, since my focus is on the uses to which it was put and on the effects that appeals to it continue to have.⁵ Since my approach is thematic rather than historical, ancient occurrences of the “man alone of animals” formula are regularly juxtaposed with instances in current discourse to underline the remarkable tenacity of the ideas that underlie the formula and the striking similarity of the consequences for human action that have arisen from its application in ancient and contemporary thinkers.

I hope that this work may be of value to the growing number of classical scholars who have an interest in the complex and varied roles that non-human species played in the lives of human beings in the classical world and who may have encountered some ancient examples of the “man alone of animals” formula used with reference to the intellectual advantages of humans over other animals species, but who may be less familiar with such claims when applied to the physiological and emotional dimensions of the human being, and who may likewise be unaware of the use of such claims in modern philosophical and scientific discourse. Because I hope that this work may prove illuminating to non-classicists as well, in particular to philosophers and scientists who, without recognizing its ancient origin, may have employed or opposed assertions of the “man alone of animals” type in works delineating the excellences and shortcomings of humans and other animals, I have transliterated all Greek philosophical terms of a technical nature that appear in the text in Greek letters, and I have translated or paraphrased all citations from Greek and Latin authors. For these readers, I have occasionally described ancient authors and the contents of their works in greater detail than might seem necessary to scholars of classical literature. Although Greek and Roman claims of the “man alone of animals” type are found predominantly in philosophical and scientific texts, some of the more eloquent and intriguing examples appear in poetic, dramatic and historical works, and I have included discussion of these where appropriate.

Notes

- 1 On Homeric, Hesiodic and pre-Socratic attempts to characterize and classify human beings and other animals, see [Chapter 2](#), pp. 11–15.

2 Robert Renehan, "The Greek Anthropocentric View of Man," *HSCPh* 85 (1981) 246. In classical rhetorical theory, the term *topos* (Greek, "place," "commonplace"; Latin, *locus*, *locus communis*) designated a "place" from which a speaker could derive material useful in persuading his audience. Cicero (*De Inventione* [On Invention] II. 47) defines *loci* as "arguments that can be transferred to many cases" (*argumenta quae transferri in multas causas possunt*). He lists (II. 50), as examples of *loci* appropriate to murder trials, such notions as whether or not one should place confidence in witnesses; whether one should consider the defendant's past life; and whether one should give special attention to the issue of motive.

In post-classical usage, the term *topos* has come to be used predominantly of literary clichés and commonplace ideas repeated and elaborated in various contexts. One familiar *topos* that scholars isolate is that of the *locus amoenus* or "pleasant locale," used in descriptions of landscapes and gardens since the time of Homer. A classic exposition of the varieties and function of *topoi* in classical and post-classical literature is found in Ernst Robert Curtius, *European Literature and the Latin Middle Ages* (Princeton: Princeton University Press, 1973; transl. by Willard R. Trask), especially pp. 79–110. The essays in Lynette Hunter, ed., *Toward a Definition of Topos: Approaches to Analogical Reasoning* (London: Macmillan, 1991), provide helpful guidance toward understanding the difficult concept of *topos*.

3 Renehan 248–249.

4 Zoologist and ethologist Frans deWaal, *Good Natured: The Origins of Right and Wrong in Humans and Other Animals* (Cambridge: Harvard University Press, 1996) 33–34, observes that the term "ethology" arose in the 1940s when it was perceived necessary to distinguish the study of animals in wild surroundings from that carried out in the confines of the laboratory. "Ethology" was chosen to designate the study of animals in natural settings unfettered by the artificial conditions of the laboratory. Philosopher Gary Steiner, in *Animals and the Moral Community: Mental Life, Moral Status, and Kinship* (New York: Columbia University Press, 2008) 4–6, notes that recent years have witnessed a shift from emphasis on "behavioral ethology," which focuses on the study of outward, observable behavior of animals, to concentration on "cognitive ethology," which seeks to understand the internal mental lives of animals in an attempt to determine whether non-human species experience such mental phenomena as beliefs, perceptions, desires, reflection and choice.

5 Renehan's article provides, somewhat in the manner of a catalogue, extensive examples of appearances of the "man alone of animals" *topos* in Greek literature through the Byzantine period, with special attention to claims of the intellectual uniqueness of human beings, but he acknowledges (252) that, even with this generous sampling of examples, "It would not be difficult to quadruple these specimens."

1 Introduction

“Man Alone of Animals”: An Ancient Formula and Its Survivals

What a piece of work is a man, how noble in reason, how infinite in faculties, in form and moving, how express and admirable in action, how like an angel in apprehension, how like a god: the beauty of the world, the paragon of animals. And yet to me, what is this quintessence of dust?

(Shakespeare, *Hamlet* II. ii)

In 2010, bioethicist Wesley J. Smith published a book provocatively entitled *A Rat Is A Pig Is a Dog Is a Boy: The Human Cost of the Animal Rights Movement*.¹ As his subtitle makes clear, Smith's work is intended as an exposé on what he judges to be the very real dangers to western civilization of a belief system that, he contends, attributes too much value to non-human animals while at the same time undervaluing human beings. The belief system that he specifically targets is that which he considers to be advanced by the American animal rights movement, represented for him by People for the Ethical Treatment of Animals (PETA), to whose President, Ingrid Newkirk, he attributes the grotesque equation of his book title.² In his effort to combat what he considers to be the anti-human ethical stance of the animal rights movement which, he charges, seeks to prove that a moral equivalency exists between human and non-human animals, Smith declares, “I will mount an unequivocal defense of the belief that human beings stand at the pinnacle of moral worth, a concept sometimes called ‘human exceptionalism.’”³ Smith fears that if the animal rights agenda prevails, the lives of human beings will be profoundly and negatively affected, with crippling restrictions imposed on medical research, food production and consumption, clothing choices and entertainment options, and that ultimately, “we will knock human beings off the pedestal of moral distinctiveness.”⁴

Near the end of his book, Smith enumerates what he reckons to be some of the signal achievements of humankind that reflect the human

exceptionalism that he admires. He asks, “What other species builds civilizations, records history, creates art, makes music, thinks abstractly, communicates in language, envisions and fabricates machinery, improves life through science and engineering, or explores the deeper truths found in philosophy and religion?”⁵ Although Smith nowhere employs the formula verbatim, his book may justly be viewed as an elaborate defense of the concept of human uniqueness based upon repeated if implicit assertions of the “man alone of animals” type analyzed, in their classical manifestations, in Renehan’s study.

Smith’s catalogue of human achievements assumes, in the manner of the Greeks, that humankind’s uniquely favored position in the hierarchy of animalkind arises primarily from their superior *intellectual* capacities, and that, in the manner of at least some Greeks, this uniquely favored position in creation has moral consequences for human action: only human beings, precisely because they *are* human, possess moral agency which imparts both rights and duties uniquely to them. Humans must determine their obligations to other animal species but, in Smith’s view, one cannot correctly speak of rights or wrongs in connection with non-human animals. As irrational creatures, non-human animals can no more have rights or duties toward us or toward each other than we can toward them.⁶ Smith’s conviction that moral worth and intellectual superiority are closely intertwined becomes clear when he attempts to refute the potential objection that pre-rational infants and cognitively impaired humans cannot have rights, by asserting that the entire human species has moral worth and “not just individuals who happen to possess rational capacities.”⁷ He cites authorities who support his belief that human beings are by their nature rational beings who can neither acquire nor lose that nature. Humans either inhabit or could potentially inhabit the moral realm, and are therefore unlike any species that does not have even the capacity to develop rationality. Moral agency, in Smith’s view, is possessed by the human species and not just by its rationally functioning members.

Smith winds up this somewhat abstract line of argument with a reminder to his readers that the overriding purpose of his book is a practical one, namely, to defeat the anti-human agenda of the animal rights movement which would topple humankind from its favored place in creation if it is allowed to prevail. The animal rights debate is, in his estimation, a *human* debate about the nature of our responsibilities toward other animal species that arise exclusively from our nature as humans. Ironically, he concludes, the animal rights debate provides “proof of the unique nature of the human species, or

what some call ‘human exceptionalism.’”⁸

An earlier, more logically rigorous presentation of some of the ideas introduced in Smith is offered in philosopher Mortimer J. Adler’s treatise, *The Difference of Man and the Difference It Makes*, the title of which suggests that its author may already at the outset have come down on the side of “human exceptionalism.” This conclusion is reinforced by Adler’s assurance that his book seeks to determine “how man differs from everything else in the universe . . . ”⁹ Central to Adler’s inquiry is the determination of whether humans differ from other animals in *kind* or in *degree*, since the answer to this fundamental question may have practical consequences for humans’ treatment of other species.¹⁰ Although Adler asserts that the answer to his question will require input from both science and philosophy since neither is, in his time, by itself adequate to the task, his argument owes very little to animal behavioral studies and relies rather heavily upon logical deduction, as he grapples with issues of superficiality and radicality of difference in kind between animal species.

In Adler’s explanation of the concept, one creature differs from another in *kind* if it possesses a property that other creatures do not. Hence vertebrates have some bodily structures that differ in kind from those of invertebrates. Conversely, if one thing has more of a quality that another does possess, the one is said to differ from the other only in *degree*, as one bird differs from another in speed of flight. To assert that humankind differs only in *degree* from other animals, one would need to provide evidence that all other creatures, and even machines, in Adler’s view, can perform all actions that humans can, in either a greater or lesser degree than is the case with humankind.¹¹ To prove, however, that humankind differs *radically in kind*, one must demonstrate that humans perform some acts not performed at all by other living beings, in consequence of the presence in humans of some unique power or factor. At this point in his argument, Adler shows his debt to Greek speculation on the place of humankind in animal creation, as he observes that Plato, Aristotle, the Stoics including Marcus Aurelius, and Saint Augustine all taught that humankind differs *radically in kind* from other creatures.¹² All of these thinkers, he continues, attributed the radical difference in kind to the intellect, reason, thought and understanding of human beings, as these are manifested in their achievements in the arts, sciences, law and literature. Adler’s catalogue of unique achievements that derive from human intellect bears a striking similarity to that of Smith, as Adler declares,

Only men make laws; only men make sentences; only men read, write and make

speeches; only men build and operate machines; only men paint pictures that have some representative meaning; only men engage in religious worship; only men cook their food; only men walk erect; and so on.¹³

This radical difference in kind is attributable, in Adler's view, specifically to humankind's possession of what the philosopher terms "propositional language," which allows for their unique capacity for conceptual thought.¹⁴ Adler is willing to allow that other animal species may have perceptual thought, which prompts their conditioned responses to life situations, and may have as well some degree of memory which prompts their reactions to stimuli, but he insists that only humans employ symbolic language that allows them to draw conclusions from their surroundings and to think abstractly.

The possibility that humans differ radically in *kind* from all other animal species has profound theoretical and practical consequences for Adler that recall Smith's conclusions. If humans are unique in kind in the animal world, they deserve special treatment that is based on their difference from other species. Humans cannot be used as a *means*, and their liberty and life must be respected.¹⁵ Adler claims that humans have always interpreted the "observation that they alone have the power of speech as signifying not only a psychological difference in kind between themselves and the brutes, but also the psychological superiority of their own kind."¹⁶ An inferior creation ought to be controlled by a superior creation, he maintains, and to be treated as a means to an end, as instruments of human welfare. Again, he cites Plato, Aristotle, the Stoics and the early Christians, as advocates of this position, bringing his argument back around to the Greeks whom he had early on in his work cited in defense of his position.¹⁷ Adler is careful to forestall the objection that fully rational human beings might have the right to exploit rationally impaired humans, by arguing, as would Smith, that all human beings differ from one another only in *degree*, not in *kind*, since one group of humans contains the same sort of beings that other groups contain, despite any shortcomings in one or the other group. A particularly intriguing conclusion that Adler draws from this line of argument, which he unfortunately leaves undeveloped, is that any proof that humans differ in *kind* from other creatures tends to support the Christian view of "man."¹⁸

The starkly anthropocentric visions of animal creation offered by Smith and Adler have much in common, both in the striking similarity of their catalogues of uniquely human achievements made possible by humankind's superior intellect, and in the sweeping conclusions that they draw concerning the inherent moral primacy of human beings

that this intellectual superiority bestows. They likewise share two noteworthy omissions: neither makes more than a passing reference to Greco-Roman contributions to the line of argument that they advance, and both appear equally oblivious to counterarguments in scientific and philosophical literature contemporary with their own work. As we shall note in subsequent chapters, at least half of Smith's claims of human uniqueness and a number of Adler's have parallels in Greco-Roman philosophy and natural history, in authors who either assert that one or another of these achievements is in fact unique to "man alone of animals," or who, in contrast, reject that claim.

The anthropocentric mindset that distinguishes works like those of Smith and Adler has been subjected in recent years to searching criticism in works that ask whether such a mindset may be allowed to persist in a world both blessed by remarkable advances in the sciences and beset by numerous challenges. In his historical survey of anthropocentric thought in the west, Dieter Lau, focusing in particular upon the ecological challenges of the modern world, asks whether nature has its own moral values or whether, on the other hand, it exists solely for humankind.¹⁹ In endeavoring to answer this question, Lau offers a detailed history of the remarkably persistent idea that the human is, as the title of his work suggests, the "center of the world" (*Mittelpunkt der Welt*). Lau laments the fact that scholars have consistently ignored classical perspectives on this question, in the belief that the human's desire to conquer earth and its creatures finds its origins in Christianity, and he reminds his readers of the Stoic coloring of early Christian pronouncements on humankind's relation to the natural world.²⁰ In Lau's view, only analysis of classical sources can elucidate the origin of the notion that the human is in fact the real purpose of creation, a premise still widely accepted, he notes, despite recent findings in biology and psychology.²¹

Lau argues that the rise of this anthropocentrism, in its classical and post-classical manifestations, is derived from two inter-related components, the first of these being the idea that the human stands somehow outside of the totality of nature and, being freed from it, exercises control over it. Since they work *on* nature, humankind is an active agent, whence emerges Lau's second component, that of the human's "self-creation." Humans eventually conclude that they are the purpose of creation.²² They have thereby a sort of "cultural specialness" alluded to in Greek myth, philosophy and theology. The human's "exceptionalism" is not limited, however, to having a function as a kind of "culture hero," but extends as well to the recognition that humans have certain biological and intellectual features that accord them their "biological exceptionalism."²³ Lau

concludes his theoretical introduction to the topic of the origins of anthropocentrism with a cautionary observation that we must be careful to distinguish whether that mindset is after all a mark of human self-perception in general, or rather just a priority of Greco-Roman and biblical-Christian thought.²⁴

Lau's study reveals both an intimate engagement with classical sources that espouse an anthropocentric world view, a feature which, as we have noted, is absent from Adler's and Smith's presentations, and a broad familiarity with recent biological, in particular ecological, thought on issues relating to the place of humankind in creation. His study succeeds in demonstrating that the Greek idea that humankind occupies a unique place in the hierarchy of nature, and that the rest of nature is made to serve him, still thrives in theoretical treatises that bear traces of influence from evolutionary theory.²⁵ Like Adler, Lau ends his work with reflections on the potential moral consequences arising from the conclusion that humankind occupies a unique place in creation, although Lau asks sharply differing questions: is it possible that other animal species have their own goals, and that they have the right to realize their own ends? If so, do humans owe justice to non-human species?²⁶ The reader comes away from Lau's work questioning the confident assertions of human supremacy with which Adler's and Smith's works conclude: does it after all matter, Lau asks, whether "man alone of animals" is in any way unique, or do the demands and needs of the totality of creation, whether we call that "nature" or "earth," take precedence?

Lau's final questions here constitute an utter repudiation of the aggressive anthropocentrism evident in Adler and Smith, although, as do they, Lau views the issue of humankind's uniqueness, central to the anthropocentric position, as predominantly a factor of *intellectual* primacy, even if Lau does allude to humans' supposed "biological exceptionalism."²⁷ The notion of "biological exceptionalism" has itself been under attack in recent decades from some scientists, prominent among whom is evolutionary biologist and ardent Darwinist James Rachels. Rachels argues that Darwin's evolutionary theory has undermined the traditional view of "man" created in the image of God and of "man" as a uniquely rational being.²⁸ The conclusion that Rachels draws from this line of argument is far more radical than that of Lau, as he asserts, "If Darwinism is correct, it is unlikely that any other support for the idea of human dignity will be found."²⁹ Human life will henceforth need to be devalued and value will be granted to non-human life, as humans are forced to rethink their treatment of animals. Darwin, Rachels notes, believed that even worms possess some intelligence, in consequence of which he concluded that the

difference between humans and other animal species “is only one of degree, not of kind.”³⁰

While Rachels notes that Darwin considered the linguistic capacities of human beings vis-à-vis those of other animal species to be properly viewed as only a matter of degree, he doubts that language experiments involving animals, including those in which primates have apparently been taught American Sign Language, are valid proof of linguistic ability in animals, and he agrees with those who have charged that such experiments may involve cueing. He agrees with Darwin, however, that to deny rationality to animals assumes a sharp break between humans and other species, and the existence in humans of characteristics that exist nowhere else in nature, an assumption that evolutionary theory fails to support.³¹ Hence, Rachels concludes, we cannot assume that “man alone”³² is rational. The notion of “human dignity” becomes obsolete, and the attendant idea that humankind and other animal species occupy different moral categories will need to be rejected.³³ For Rachels, as for Lau, species membership is unimportant, and humans must accord equal consideration to the welfare of all creatures. The only acceptable morality that can emerge in a world in which human beings do not occupy a morally superior position will be that built upon what Rachels terms “moral individualism,” which takes into account the relative unimportance of species membership.³⁴

Some recent scholars have developed the evolutionary approach observable in Rachels to argue that the anthropocentric world view may in time become obsolete. Historian of anthropocentric thought and specialist in human-animal interactions Rob Boddice acknowledges that anthropocentrism has “provided order and structure to humans’ understanding of the world, while unavoidably expressing the limits of that understanding. It influences our ethics, our politics, and the moral status of Others.”³⁵ Yet, he argues, anthropocentrism may have outlasted its usefulness as the tension with nature, with non-human animals and with the environment inherent to the concept becomes increasingly evident. We may need to redefine what it means to be human and to rethink how humans are properly to be viewed alongside animal Others, an endeavor which may necessitate a reconsideration of precisely what *anthropos* means in the term “anthropocentrism.”³⁶

Boddice’s thesis that anthropocentrism may be on its way to obsolescence is developed in a disturbing direction by philosopher of technology Langdon Winner, who observes, citing the concept that humankind is the tool-making species, a position that many mid-

twentieth-century anthropologists singled out as the factor that led to social organization and cultural advancement for humanity, that in some “posthuman” critical discourse, humankind and its tools are seen as finally merging.³⁷ Some would say, in light of the enormous technological advances of the past half century, from telephones to nuclear bombs to computers, that humans and their inventions are no longer separate entities, but are becoming a race of “transhumans,” what some call hybrids or cyborgs. That is, we are on the road to artificial human beings.³⁸ Winner sees the remedy to this frenzied quest to exceed human bounds to lie in a reconsideration of what it means to be human, in a refocusing on our good nature and on our human decency.³⁹

In her work *Beast and Man: The Roots of Human Nature*, philosopher Mary Midgley takes up some of the questions tackled by Rachels the evolutionary biologist and Boddice the philosopher of technology and asks whether perhaps, in the final analysis, “difference” is not to be considered as a sign of superiority or inferiority between species, as defenders of an anthropocentric construction of animalkind have maintained since Greek antiquity, but rather as just a sign of “difference,” and nothing more. That is, perhaps humankind’s *continuity* with other animal species is more important than is any difference between species.⁴⁰ Midgley considers humankind’s obsession with the question of what finally distinguishes us from other animal species, a question that since Aristotle has led to the definition of “man” as *the* rational animal, to be wrong-headed.

In Midgley’s view, we may more productively ask what constitutes the characteristic excellence of humans than what distinguishes them from other species.⁴¹ To approach the issue of human nature from this angle allows us to avoid the discomfort that many feel each time another animal species is shown to possess some capacity previously judged to be unique to human beings. Perhaps most upsetting to humans, in Midgley’s estimation, is scientific evidence that other species can be taught some form of language. When experiments are cited in which certain primates appear to master American Sign Language, for example, defenders of human uniqueness are quick to counter that this is not really a language at all, since it possesses neither the syntactical sophistication nor the elaborate and elastic word order that a language that relies on exercise of the rational faculty presumes. Language possession, Midgley notes, is “the key to our castle,” the manifestation of rationality that humans have throughout history most jealously guarded for themselves.⁴² She asks what difference it makes if animals do possess language, except insofar as it supplies evidence of the continuity of animal creation.

The effect of her inquiry is to call into question all of those age-old “markers” of human superiority, including rationality, language and culture, and to substitute for them an appreciation for humankind’s role in the biosphere. In her estimation, to isolate humans from the continuity of nature lessens their dignity rather than guaranteeing it.⁴³

This brief survey of anthropocentric thought in the late-twentieth and early- twenty-first centuries, drawn from works that either warmly embrace the concept of “human exceptionalism” or sharply question its validity, illustrates the fact that current scientific and philosophical discourse still employs terminology encountered first in Greek assertions of the “man alone of animals” type and still reflects many of the assumptions and prejudices that underlay Greek speculation on the nature of animalkind. Our survey supports the assertion of Robert Renehan, whose analysis of the “man alone of animals” *topos* is discussed in our Preface, that the “attitude that man is a rational animal, has been for so long an accepted commonplace in Western culture that its specifically Greek origin is seldom a matter of conscious reflection.”⁴⁴ The view of humankind presented in Adler and Smith, while heavily dependent upon Greek notions of the uniqueness and supremacy of human reason, betrays only slight appreciation of its debt to classical thought. Moreover, the works of Adler and Smith which define the human as *the* rational animal bear out Renehan’s observation that this definition serves to “encapsulate an attitude toward man and animal which may fairly be described as severely anthropocentric.”⁴⁵

Our overview of recent anthropocentric and anti-anthropocentric thought has allowed us to illustrate the remarkable longevity and potential for harm to non-human animals of appeals to arguments of the “man alone of animals” type, most especially in the hands of proponents of the doctrine of “human exceptionalism” who question the possibility that human beings may stand in some sort of moral relation with non-human animals. Some classical scholars who have taken note of the prevalence of assertions of the “man alone of animals” type in Greek sources have remarked upon the fact that this manner of viewing humankind vis-à-vis animalkind was not widely disseminated in ancient cultures and appears to be a singularly Greek phenomenon, inspired at least in part by Greek attempts to classify animal creation.⁴⁶ In the following chapter, we take up the question of how ideas encountered in Greek anthropological thought may have predisposed the Greeks to adopt a mindset in which arguments of the “man alone of animals” type could thrive.⁴⁷

Notes

- 1 Wesley J. Smith, *A Rat Is a Pig Is a Dog Is a Boy: The Human Cost of the Animal Rights Movement* (New York: Encounter Books, 2010).
- 2 Smith 3. Smith notes here that Newkirk used this phrase in an interview with the *Washingtonian* magazine to make the point that the animals named are all mammals and are morally equivalent: a rat, in her view, has no less value than does a boy.
- 3 Smith 3.
- 4 Smith 8.
- 5 Smith 238.
- 6 Smith 232–235.
- 7 Smith 235.
- 8 Smith 235.
- 9 Mortimer J. Adler, *The Difference of Man and the Difference It Makes* (New York: Holt, Rinehart and Winston, 1967) ix.
- 10 Adler 10.
- 11 Adler 38.
- 12 Adler 54.
- 13 Adler 52.
- 14 Adler 127.
- 15 Adler 257–258.
- 16 Adler 265–266.
- 17 Adler 266.
- 18 Adler 287.
- 19 Dieter Lau, *Der Mensch als Mittelpunkt der Welt: Zu den geistesgeschichtlichen Grundlagen des anthropozentrischen Denkens* (Aachen: Shaker Verlag, 2000)
- 20 Lau 2. Greg Goodale, *The Rhetorical Invention of Man: A History of Distinguishing Humans from Other Animals* (Lanham: Lexington Press, 2015), touches on some of the issues addressed in Lau. Goodale argues that the categories employed by human beings to distinguish themselves from other animal species are replete with contradictions, unsupported assumptions and faulty premises, leading to arrogant speciesist conclusions on humankind's unique and special status among animalkind. Despite its title, Goodale's work, unlike that of Lau, does not offer a historical coverage of the topics that it addresses and concentrates on post-Renaissance sources, most especially on authors of the Age of Reason and later, and discusses at some length only Aristotle among ancient contributors to modern anthropocentric prejudice. The Stoic contribution to the argument is scarcely alluded to in Goodale.
- 21 Lau 4.
- 22 Lau 6.
- 23 Lau 6 speaks of an early "Feststellung der gegenüber den anderen Lebewesen spezifischen körperlichen und geistigen Merkmale des Menschen, also der biologischen (physisch-rationalen) Sonderstellung."
- 24 Lau 7.
- 25 Lau 121–125 discusses the modern anthropocentric world views of Bergson and

Teilhard de Chardin, as well as of several German theoreticians, and points out their similarities to Greek views.

- 26 Lau 125
- 27 See note 23, above.
- 28 James Rachels, *Created from Animals: The Moral Implications of Darwinism* (Oxford: Oxford University Press, 1990) 5.
- 29 Rachels 5.
- 30 Rachels 133.
- 31 Rachels 165–166.
- 32 The phrase occurs verbatim at Rachels 166.
- 33 Rachels 171.
- 34 Rachels 222.
- 35 Rob Boddice, “The End of Anthropocentrism,” in Rob Boddice, ed., *Anthropocentrism: Humans, Animals, Environments* (Leiden and Boston: Brill, 2011) 1.
- 36 Boddice 1.
- 37 Langdon Winner, “Resistance Is Futile: The Posthuman Condition and Its Advocates,” in Harold W. Baillie and Timothy K. Casey, eds., *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition* (Cambridge: MIT Press, 2005) 392.
- 38 Winner 394. Winner notes here that the “extensionist position” advanced in the 1960s and 1970s by Marshall McLuhan, according to which man’s machines take him where he could not otherwise go, is a potent antecedent to the twenty-first-century view that humankind and its tools are in fact merging into “transhumans.”
- 39 Winner 404.
- 40 Mary Midgley, *Beast and Man: The Roots of Human Nature* (Oxford: Routledge, 2002) xxiv.
- 41 Midgley 196.
- 42 Midgley 206.
- 43 Midgley xlii.
- 44 Renehan 240.
- 45 Renehan 246.
- 46 Renehan 247, for example, observes, “I do not know of any other people who have expressed themselves thus emphatically in this way.”
- 47 I avoid the use of the term “anthropology” here since that discipline, understood as the study of humans and human societies, did not exist among the Greeks as a formal area of inquiry. Speculation on the origin of human and animals, the early state of human society and the growth of human culture is encountered in a broad spectrum of Greek authors whose interests ranged from philosophy to geography to medicine to ethology, broadly understood as the study of the nature and behavior of animals. I employ the term “anthropological thought” in this volume to refer to pronouncements on the nature of humankind and of animalkind, wherever they may appear in ancient thought. The literature on anthropological lore among the Greeks is vast. Worthwhile are W. K. C. Guthrie, *In the Beginning: Some Greek Views on the Origins of Life and the Early State of Man* (Ithaca: Cornell University Press, 1957) and Thomas Cole, *Democritus and the Sources of Greek Anthropology* (Atlanta: Scholars Press, 1990;

reprint of the edition of 1967).

2 First Steps Toward a “Man Alone of Animals” Concept in Greek Thought

There are many wondrous things, but none more wondrous than man.

(Sophocles, *Antigone* 332)

One of the most persistent impulses of the Greek intellect was toward classification. Even the earliest extant Greek authors grappled with the questions of what a human being is and of how such a being is to be understood vis-à-vis the remainder of animal creation and the world of the divine.¹ One positive outcome of the Greek engagement with such questions was the creation of zoological taxonomy. A more troubling development, however, was an early specialization of the impulse toward classification that manifested itself in a preoccupation with differentiation whereby certain classes of beings came to be viewed both as different and as inferior. Ironically, their recognition that humans are themselves animals inspired the Greeks to isolate criteria that might be used to differentiate the species and thereby to develop and defend the position that human behavior reflects endowments and capacities that keep human beings secure from too intimate an identification with their animality. At the same time that advances in taxonomy enabled the Greeks to place humankind in some sort of order among animal species, a strongly anthropocentric current in Greek thought worked to ensure that humans were viewed as superior to the remainder of animalkind.²

The impulse of early Greek anthropological thought to categorize and differentiate, often to the disadvantage of one or another of the groups under scrutiny, has been described by scholars both as a tendency on the part of the Greeks to view the created world in terms of analogy and polarity and as a characteristically Greek fascination with “otherness” and “the Other.”³ This mode of thought was by no means limited to the isolation of differences between human and non-human animals. Human-to-human comparisons often betrayed racial, gender or social biases. In her work *The Science of Man in Ancient Greece*, Maria Michela Sassi argues that the Greeks identified the Greek adult male citizen as the “center” against which “otherness”

was measured. Some classes of males, women, barbarians and slaves, as well as non-human animals, were thus seen as the “Other.” She maintains that, as anthropological thought developed among the Greeks, they shifted their attention from distinctions between human and beast to those between male and female and Greek and barbarian.⁴ Evidence suggests, however, that Greek efforts to differentiate human and non-human animals only intensified with the growth of science and philosophy.

The earliest manifestation of “differentness” upon which the Greeks commented was that between gods and human beings, a polarity that contributed indirectly to anti-animal prejudice in Greek thought. The distinction between “upper” and “lower” inherent in Greek notions of underworld (chthonic) and Olympian deities, as well as the more fundamental division between gods and mortals, influenced Aristotle’s biological assertion that “upper” is better than “lower,” and that the erect posture of humans is therefore superior to the downward-facing posture of non-human animals.⁵ This anatomical distinction indicated to the Greeks not only the proximity of humankind to the gods, but also the special concern that the gods showed toward man.⁶ This point of view is in evidence as well in what is widely considered to be the earliest attempt in Greek literature to distinguish human from non-human animals, namely Hesiod’s pronouncement (*ca.* 700 bce) that Zeus had given justice (δικη, *dikē*) to humankind but not to other animals which consequently devour one another (*Opera et Dies* [*Works and Days*] 274–280).⁷ Although the main point of Hesiod’s observation is that humankind differs from other *animals* in possessing justice, the closeness of humans to the *gods* is strongly emphasized in the poet’s assertion that man is that creature chosen to receive a divine gift of justice, the exercise of which distinguishes the behavior of the gods. Hesiod is not attempting here to isolate any inherent difference between humans and other animals, but rather to suggest that humans, who have been singled out to possess a divine trait, thereby approximate divinity in being ethical creatures like the gods and unlike other animals. Nevertheless, Hesiod’s observation on the superiority of human beings over other animal species does signal a movement away from the Homeric preoccupation with contrasts between divine life and human life, not least between the advantages of immortality and the sad limitations of mortality.⁸

The context in which non-human animals appear most frequently in the Homeric corpus is in the course of similes in which humans are declared to be “like” some non-human species, if only for so long as their behavior is of a certain sort, as when a warrior is likened to a lion in fierceness during an attack. The similes do not imply that

humans possess any deep-seated psychological or behavioral kinship with the animals that figure in the similes. Nor does one get the impression from Homeric similes that any attempt is being made in the epics to locate non-human animals in the hierarchy of creation or to speculate on the nature of animalkind, although the accuracy and acuity of Homeric observations on animal behavior serve at least to remind us that the Greeks of the eighth century bce had more intimate daily contact with the animal world than did the authors of later scientific and philosophical works which serve as our principal sources of information on Greek attitudes toward non-human animals.⁹ At the same time, the authors of the Homeric epics endeavored to choose terms that accurately differentiate human and non-human psychology and anatomy. The term ζῷον (*zōion*), which is used in later Greek authors to refer to a living being, both human and non-human, does not appear in the Homeric corpus, and the Homeric authors employ the terms μένος (*menos*), θυμός (*thūmos*) and ἦτορ (*ētor*) to refer to the soul or spirit of animals while restricting the use of ψυχή (*psuchē*) to the human soul or spirit.¹⁰

It is noteworthy, in these earliest, epic-age comparisons between the natures of human and non-human species, that assertions of differentness do not yet suggest a belief in the superiority of humans over other animals. Even Hesiod's account of Zeus' gift of justice to mankind does not claim that this gift was prompted by the recognition on the part of the god of any particular excellence or accomplishment in humans. Indeed, the very dependence of humankind on the favor of the gods in Hesiod suggests rather that humans are viewed as not markedly superior to other animals. It would be an exaggeration, however, to claim that early Greek epic poetry, whether of the didactic sort represented by Hesiod or of the narrative sort seen in the Homeric poems, demonstrated any serious interest in natural historical questions, or made any substantive contributions to the Greek effort to differentiate the species. It was only with the advent of pre-Socratic philosophy that a more nuanced and sophisticated approach to the question of humankind's place in the hierarchy of animal creation may be observed in Greek thought.

Just as early Greek observations on the nature of human beings are encountered in works of geography, philosophy or medicine rather than in works that might be narrowly viewed as anthropological, so too were philosophy and natural science not clearly differentiated in what is known as pre-Socratic philosophy, a term used to refer to the work of Greek thinkers active before the life of Socrates (ca. 469–399 bce) and whose interests centered, broadly speaking, on what might be considered scientific questions rather than on the ethical questions

that exercised Socrates.¹¹ Although one cannot look for uniformity of doctrine in the thought of this disparate group of thinkers, one may detect in their fragments, often poorly preserved, a preoccupation with the issue of κόσμος (*kosmos*), the orderly arrangement of the elements of creation. In this inquiry, the dichotomy between unity and diversity figured prominently. In the case of non-human animals, it was asked whether some “first principle” (ἀρχή, *archē*) can be identified which is the fundamental constituent element from which both human and non-human animals are formed. If human and non-human animals consist of the same elemental material, no difference can exist between the species.¹² In his study of early Greek anthropological thought, W. K. C. Guthrie notes that such a belief in the unitary nature of animal creation “was certainly common coin by the sixth century,”¹³ and he draws attention to the statement of Diogenes Laertius, in the prologue to his *Lives of the Philosophers*, that Musaeus, the legendary singer often connected with Orpheus and perhaps to be dated, if historical, to the sixth century bce, taught that all things come into existence from one thing and are dissolved again into that one thing.¹⁴

Although a preoccupation with detecting some “first principle” of creation suggests a predisposition to view human and non-human animals as more similar than different, one of the most significant attempts to differentiate humankind from other animal species is encountered in pre-Socratic thought, marking the first appearance in Greece of the idea, quintessentially important to later speculation on the nature of animalkind, that human beings are not only different from other animals in their intellectual endowments but superior to them as well. Theophrastus (ca. 370–287 bce), the pupil of Aristotle and his successor as head of the Peripatetic school of philosophy, informs us that the physician Alcmaeon of Croton (early fifth century bce?), known for his researches on the human senses, asserted that the human “understands” (ξυνίησι, *xuniēsi*), while other animals merely “perceive” (αἰσθάνεται, *aisthanetai*).¹⁵ Alcmaeon’s contribution to the debate on the nature of human and non-human animals is to claim that humans differ from other *animals*, rather than from *gods*, as had been asserted by Hesiod, or from other groups of humans. Since Alcmaeon was a physician, we may surmise that his statement was influenced by his anatomical studies on the human organs and should be viewed as equally a scientific and a philosophical observation. At the very least, his observation, while fleeting and undeveloped, serves as the first extant Greek assertion that humans enjoy *intellectual* advantages over other animals. It is reasonable to regard Alcmaeon as the inventor of the “man alone of animals” *topos*, at least as it would

later be applied to the category of *intellectual* superiority of humankind over the remainder of animalkind, and as a pioneering voice among those who would regard non-human animals as one manifestation of the “Other.”

Despite the frequently encountered pre-Socratic endeavor to identify the primal substance from which all creation arose, we find in the fragments of these early thinkers a variety of solutions to the question of precisely what constituted that substance. Anaxagoras of Clazomenae (ca. 500–428 bce), whose researches included biology, is said to have maintained that all creatures have a share of a primal substance that he termed “mind” (νοῦς, *nous*).¹⁶ We cannot conclude from this observation, however, that he believed that non-human animals possess reason and that he could therefore be considered a precursor to the small but vocal group of later Greek thinkers who opposed the Stoic-Aristotelian position that “man alone of animals” possesses reason and is therefore intellectually superior and, in the view of the Stoics at least, morally superior to other animal species. On the contrary, despite his attribution of one primal substance to all creatures, Aristotle informs us that Anaxagoras also claimed that the possession of hands made the human the wisest animal, an assertion that makes the pre-Socratic an early contributor to the position that humankind is *anatomically* and *physiologically* superior to other animals.¹⁷

The less renowned pre-Socratic Diogenes of Apollonia, who lived, according to Diogenes Laertius (*Lives of the Philosophers* IX. 57), at the time of Anaxagoras, taught that the universal constituent of life is air (ἄήρ, *aēr*), and that all living things derive from it soul and intelligence (DK64B4). That is to be expected since all things are altered from the same substance and are the same thing.¹⁸ Diogenes did not conclude from this line of argument, however, that all animals are alike in soul and intelligence since, in his view, air has many forms and various species partake of it in various ways. In some creatures, air is warmer or colder or moister or drier than in others, and therefore the intelligence of species varies (DK64B5). Like his contemporary Anaxagoras, Diogenes began with the view that all things are constituted of one substance, but ultimately allowed for the possibility that “man alone of animals” might possess some intellectual capacities denied to other species since levels of intellect vary in his system.

An intriguing glimpse into the development of early Greek notions of “otherness” as represented by non-human animals is afforded by the religious-philosophical doctrine of metempsychosis, commonly

understood as the transmigration of souls, a doctrine regularly associated with the teachings of the mysterious sage Pythagoras of Samos (ca. 530 bce), the fascinating but elusive figure regularly celebrated in histories of vegetarian thought as an early champion of the meatfree lifestyle.¹⁹ In his biography of Pythagoras, Diogenes Laertius explains that while some believed that he opposed the consumption of meat from a conviction that all living things possess soul, he did so in fact to encourage a simple lifestyle (*Lives of the Philosophers* VIII. 13). The later advocate of abstention, the Neoplatonist Porphyry (234–ca. 305 ce), states, however, that Pythagoras advocated abstention from a belief that all living things are endowed with rational souls that have a share of perception and memory (*On Abstinence from Animal Flesh* III. 1. 4). If the doctrine of metempsychosis is correct, and it is possible for the soul of one living being to pass into another in some manner, whether human into animal, animal into human, or human into another human, as these details varied depending upon whose version of the doctrine is in question, to consume another living being constitutes an act of injustice, according to Porphyry.²⁰ If in fact all animals are besouled and share certain intellectual faculties, as Pythagoras is said to have maintained, he must be viewed as rejecting the notion of “otherness” as it applies to human and non-human animals.

The connection between metempsychosis and notions of “otherness” among the Greeks becomes clearer when we examine the literary remains of Empedocles of Acragas (ca. 492–432 bce), a flamboyant and fascinating figure known in later ages as a philosopher, cosmologist, poet, sage, scientist who anticipated atomic theory, chemistry and the concept of biological evolution, mystic, and, like Pythagoras, advocate of a meatfree lifestyle. The connection between the thought of Pythagoras and that of Empedocles is made clear in the statement by the physician and philosopher Sextus Empiricus (second century ce) that both thinkers maintained that human beings have a fellowship (κοινωνία, *koinōnia*) with other humans, with the gods, and with other animals in that all share alike a single spirit (πνεῦμα, *pneuma*) (*Against the Mathematicians* IX. 127–129). Unlike the unitary systems of Anaxagoras and Diogenes of Apollonia, Empedocles taught that four elements, air, earth, fire and water, are the constituent elements of all creation, and that these are in a state of endless recombination under the influence of two forces that he called *Neikos*, variously understood as Strife or Hate, and *Philotes*, Friendship or Love. From the combination and recombination of the four elements under the power of these two forces, all things that were, are, and will be, whether plant or animal, human or non-human, are formed

(DK31B21). From this proto-chemical concept of creation, Empedocles readily concluded that humans bear a kinship with other animals that includes the common possession of thought (DK31B103), and he further enjoined human beings to avoid injustice by refraining from the ingestion of other creatures possessed of thought (DK31B115 and 139).²¹

Empedocles' vision of creation through recombination of elements common to all living things, plants as well as animals, a position that has been viewed by some as an anticipation of atomic theory, shows no trace of a belief that non-human animals constitute the "Other." Moreover, his version of metempsychosis, which allows for passage of the souls of human beings into other species of animals, suggests instead a belief in the kinship of all life.²² The doctrine of transmigration of souls seems by its very nature to support the view of kinship of all animalkind in that it involves, in each of its manifestations, a belief in the continuation of similar elements and materials of life. Nor does the doctrine *per se* imply any superiority of human over other animal life. Indeed, Empedocles' insistence that the consumption of animal flesh by human beings is an act of injustice contradicts Hesiod's vision of justice as a human-divine relationship by maintaining that justice does after all operate between human and non-human animals.

Since our knowledge of the ideas of pre-Socratic philosophers depends on the accidental survival of bits of primary source material supplemented by testimonia in subsequent authors who interpret the views of the earlier thinkers,²³ we would look in vain for any coherent, systematic or developing view of the nature of animalkind vis-à-vis humankind, but it appears that, with the exception of random and undeveloped pronouncements like those of Hesiod and Alcmaeon, no sharp distinctions were yet drawn between species to the extent that human beings were declared to be different in essence from other animals or morally superior to other species because of any perceived advantages, intellectual, physiological or emotional, that humans might possess in a greater degree or exclusively over other species. Pre-Socratic explorations of first principles of creation and accounts of the passage of human souls into other animal species that characterize some versions of Greek teaching on metempsychosis would seem to argue against any strong conviction of a fundamental difference between the species. In any case, the extant remains of pre-Socratic philosophy offer few traces of the robust and aggressive anthropocentrism that would eventually segregate humans from non-human animals in Greek thought and produce what Renehan had called "the pronounced dichotomy, whereby man is rigidly opposed to

other animals,”²⁴ that would eventually arise from the conviction that “man alone of animals” was rational, a dichotomy that Renehan declares to have “scarcely any rival as a characteristically Greek concept.”²⁵

Renehan argues that the polarized view that considered human animals as different from other species and superior to them because of the highly developed intellectual faculties of human beings was fully operational in Greek thought by the time of Plato and, indeed, by that time was already something of a commonplace notion.²⁶ A powerful impulse toward the development of such anthropocentric species prejudice among the Greeks was provided by the group of itinerant lecturers, the earliest of whom were active in the fifth century bce and who were thus contemporaries of some of the later pre-Socratics, who traveled about the Greek world and, for fees that were sometimes exorbitant,²⁷ offered opinions on a range of topics and who are called, as a group, the Sophists, a collection of individuals who formed no organized school of philosophy and espoused no uniform or universally held views. Despite this lack of unity of doctrine, W. K. C. Guthrie notes that the Sophists as a group differ from the pre-Socratics in demonstrating at the very least a “shift of interest from natural phenomena to human affairs.”²⁸

Although the specialized interests of individuals numbered among the Sophists varied from ethics to anthropology to mathematics to grammar, they shared a fascination with issues that might broadly be termed “cultural,” including investigation into the early state of mankind, the development of human society, the origin and nature of law, and the role of the divine in human affairs. Whatever their specialties, the Sophists, as educators, presented themselves as teachers of ἀρετή (*aretē*), that complex and elusive concept that combined features of moral virtue, courage and successful living that made a person a leader in society. Although Plato would question the teachability of “virtue,” especially in the *Meno* and the *Protagoras*,²⁹ it is in any case clear that the Sophists regarded their mission as practical and useful. In this they distinguish themselves from many of the pre-Socratics, bearing out the statement of Guthrie that “. . . in general the Sophists were not scholars writing philosophical and scientific treatises for the future. They were rather teachers, lecturers and public speakers, whose aim was to influence their own age rather than to be read by posterity.”³⁰

For the human being, in Sophistic teaching, language was the medium of success and the guarantor of advancement in civilization, and the Sophists discussed at length the origins of language and the

part played by it in the growth of justice and law among the Greeks. It is easy to understand how such views might contribute to the severe anthropocentrism that Renehan identifies in Greek thought, especially when the Sophists came to contrast human advancement with what they saw as the uncultured and intellectually primitive status of other animal species. Early human life was now viewed as “beastly,” and animal life as inferior to developed human life. The ability to manipulate language contributed in no small degree to the domination of mankind over animal creation. Not surprisingly, the Greek language, viewed as the conduit of reason and culture, raised the Greeks above not only barbarian “Others” but even more decidedly above non-human animals, and the speech of barbarian peoples was often regarded as no less incomprehensible than the chatter of animals when viewed against the articulate and nuanced language of the Greeks.³¹

Humans beings, as the inventors and wielders of speech, were thus viewed by the Sophists as a cultural force who manipulated their surroundings to suit their needs.³² Being incapable of articulate speech, non-human animals could not, in the view of the Sophists, create genuine societies, nor enjoy the advantages of law and justice which the Sophists considered to be the prerequisites for settled and stable society. It is possible to see in some of the consequences that the Sophists viewed as attendant upon the primacy of λόγος (*logos*), understood as “speech,” a migration from the use of the word in that sense to the use of the word in its other, perhaps more familiar and philosophically influential sense of “reason,” and thus an early manifestation of the position, so closely associated in subsequent Greek thought with the Stoic denigration of the intellectual capacities of non-human animals, that “man alone of animals” possesses reason and is therefore endowed with moral standing denied to irrational non-humans.³³

As nature’s only cultural being, “man alone of animals” possessed the capacity to control and alter that nature by imposing upon it the social and political institutions that his *logos*, understood as both speech *and* reason, prompted him to create.³⁴ The rise of civilization and the early state of humankind were frequent themes in Sophistic discourse. In his life of Protagoras (ca. 490–420 bce), Diogenes Laertius (*Lives of the Philosophers* IX. 55) includes among the works of that most famous of the Sophists a treatise entitled περὶ τῆς ἐν ἀρχῇ καταστάσεως (*On the Early State of Things*).³⁵ Humankind’s rise from a primitive state was aided by a range of useful and practical skills, inspired and actualized by his reason, that were designated by the elusive term τέχναι (*technai*), and that encompassed all the fruits of

applied intelligence. Man, in Sophistic parlance, is nature's τεχνίτης (*technitēs*), her artificer.³⁶ It is easy to see, in this starkly anthropocentric vision of humankind's rise to supremacy in the scheme of nature, that non-human animals had little part to play beyond that of tools in the spectacular rise of human beings.

What mattered to the Sophists was how humans related to the world and how they chose to judge its components, a stance that scholars of the Sophistic movement have seen as indicating a relativity of values in Sophistic ethical theory. As de Romilly explains the concept as it was reflected in the anonymous Sophistic treatise entitled *Dissoi Logoi* (*Double Arguments*), perhaps the work of a pupil of Protagoras, "the good and the bad, the beautiful and the ugly, the just and the unjust become confused because they are only what they are according to one individual in a particular situation."³⁷ What matters is what the human thinks, and non-human animals, as creatures lacking *logos* in both its senses of "speech" and "reason" and consequently regarded by the Sophists as ἄλογα ζῶα (*aloga zōia*), "speechless/reasonless creatures," take their place among those viewed as "Others." Creatures that were incapable of rational discourse could not contribute to the debate on questions of social, political and racial equality that underlay Greek concerns with "otherness." Heath has argued convincingly that the Greeks numbered barbarians, women and slaves among such linguistically challenged classes of "Others."³⁸ It is hardly surprising that non-human animals, following the heyday of the Sophistic movement in the fifth century bce, came to be viewed increasingly as inferior, disadvantaged and worthy of contempt. The pre-Socratic quest for evidence of unity in creation had given way to a belief system that countenanced an embryonic form of the concept now termed "human exceptionalism," which modern proponents of the belief, including Wesley J. Smith, would have found entirely congenial. The "man alone of animals" concept, to use its ancient name, was now fully at home in Greek thought.

In subsequent chapters, we explore Greek and, where appropriate, Roman speculation on "sameness" and "otherness," on "kinship" and "foreignness," and on "likeness" and "differentness," with particular attention to the contribution made by such dichotomies to the development of the "man alone of animals" concept in classical thought and to its survival into the twenty-first century. The following chapter examines what may justly be viewed as the three most extensive and fully developed expositions of the "man alone of animals" concept in extant Greek and Roman literature that elaborate the concept simultaneously in its intellectual, physiological and

Notes

- 1 On Greek attempts at scientific classification of living beings aimed at defining what a human being is, see Mario Vegetti, *Il Coltello e lo Stilo: Animali, Schiavi, Barbari e Donne alle Origine della Razionalità* (Milan: Il Saggiatore, 1979). Vegetti's study, which he describes (7) as an investigation of the intersection between science and ideology in Greek thought, examines the rise of zoological taxonomy in Greece.
- 2 Renehan 253 comments on these conflicting currents, observing that even Aristotle's own biological researches served to some extent to bolster the anthropocentrism of Greek thought by advancing the notion that the animal and plant worlds were created for the use of humankind. Boria Sax, "What Is This Quintessence of Dust?: The Concept of the 'Human' and Its Origins," in Rob Boddice, *Anthropocentrism* 26, reminds us that human beings continue to experience difficulty in accepting their animality, "Though scientists may now classify humankind among the animals, we are still very far from having internalized that idea."
- 3 In the past few decades, what might be termed "otherness studies" have proliferated in classical scholarship as researchers have stressed the fondness of the Greeks for expressing their identity by contrasting themselves with other cultures which they often viewed as inferior to themselves. Some scholars have criticized what they consider an overemphasis on "otherness" in classical studies. In his work *The Talking Greeks: Speech, Animals, and the Other in Homer, Aeschylus and Plato* (Cambridge: Cambridge University Press, 2005) 17–24, John Heath offers a helpful overview of the premises of "otherness studies" while regarding the concept with some suspicion. He judges the Greek dichotomy between those who speak (human beings) and those who do not (non-human animals) to be the fundamental category of "otherness" of interest to the Greeks. Although he does not develop his observation much further, Heath had earlier called attention to the presence of the "man alone of animals" formula in Greek texts, noting the Greek obsession with differentiating humankind from other animals. He observes (6), "The Greeks were consumed with this effort, virtually inventing the familiar topos 'man alone of animals' is/possesses x." Erich S. Gruen, *Rethinking the Other in Antiquity* (Princeton: Princeton University Press, 2011), has questioned the broad acceptance in classical studies of the view that ancient cultures sought to express their self-identity through a disparagement of other cultures. Gruen (3) argues that the Greeks, Romans and Jews had much more nuanced and sophisticated views of foreign peoples than the "otherness" model allows. Animals seen as the "Other" are not included in Gruen's study. On the use of analogy and polarity in the categorization of scientific phenomena by Greek thinkers, see the classic study of G. E. R. Lloyd, *Polarity and Analogy: Two Types of Argumentation in Early Greek Thought* (Cambridge: Cambridge University Press, 1966). Lloyd observes (7), "Few of those who study early Greek thought can fail to be struck by the recurrent appeal to pairs of opposites of various sorts both in general cosmological doctrines and in accounts of particular natural phenomena." The essays in Beth Cohn, ed., *Not the Classical Ideal: Athens and the Construction of the Other in Greek Art* (Leiden: Brill, 2000) illustrate how the depiction of the Athenian male in Greek art was often influenced by attitudes

toward that which was non-male or non-human. Artistic depictions of “otherness” in animals led to an interest in fantastic creatures and representations of gods in animal form. Paul Cartledge, *The Greeks: A Portrait of Self and Others* (Cambridge: Cambridge University Press, 1993) contains chapters that cover Greeks vs. barbarians, men vs. women, free vs. slave, citizen vs. alien, and us vs. them, but he scarcely mentions non-human animals. Katarzyna Kleczkowska, “Those Who Cannot Speak: Animals as Others in Ancient Greek Thought,” *Maska* 24 (2014) 97–108, offers a brief sketch of Greek views of non-human animals as the “Other” in Greek thought from the heroic age through the classical period, and touches briefly on Greek views of man as the animal uniquely endowed with reason (*logos*).

- 4 Maria Michela Sassi, *The Science of Man in Ancient Greece* (Chicago: University of Chicago Press, 2001; transl. by Paul Tucker) 34. Heath (24) charges that proponents of “otherness studies” have tended to concentrate upon ancient discussions of women, slaves and foreigners as the “Other,” while exhibiting less interest in animals as others.
- 5 See Aristotle, *De motu animalium* (*On the Movement of Animals*) 706b12–13: τὸ δ’ ἄνω τοῦ κάτω καὶ τὸ πρόσθεν τοῦ ὀπίσθεν καὶ τὸ δεξιὸν τοῦ ἀριστεροῦ τιμιώτερον (“for the upper is more honorable than the lower, and the front than the back, and the right than the left”). Aristotle makes this same point, in almost identical language, at *De partibus animalium* (*On the Parts of Animals*) 665a23–26. At *On the Parts of Animals* 686a 27–28, Aristotle, employing the “man alone of animals” formula verbatim, declares that man is the only animal that stands upright, because he is divine in nature: ὀρθὸν μὲν γάρ ἐστι μόνον τῶν ζῴων διὰ τὸ τὴν φύσιν αὐτοῦ καὶ τὴν οὐσίαν εἶναι θεϊάν (“man alone of animals is upright because his nature and essence are divine”). We might recall here that Adler (52) included, in his enumeration of uniquely human capacities, the fact that “only men walk erect.” A list of the numerous ancient references to the upright posture of humans is offered in Richard Sorabji, *Animal Minds and Human Morals: The Origins of the Western Debate* (Ithaca: Cornell University Press, 1993) 92n114.
- 6 Lau 7 argues that the conviction that humankind occupies a “religious-theologically special position” (“religiös-theologische Sonderstellung”) in creation contributed to the belief on the part of humans that they are the centerpiece of creation. See also [Chapter 1](#), pp. 4–5, on Lau’s arguments. In “Radici di una Filosofia non Antropocentrica,” *Biblioteca della Libertà* 23 (1988) 73–84, Margherita Isnardi Parente discusses the attempt by the pagan philosopher Celsus (second century ce) to refute the position that man is the center of creation, a polemical campaign in which he was opposed by the Christian Origen.
- 7 Urs Dierauer, *Tier und Mensch im Denken der Antike: Studien zur Tierpsychologie, Anthropologie und Ethik* (Amsterdam: Grüner, 1977) 15, calls this Hesiodic passage “die erste prinzipielle Abgrenzung von Menschen und Tieren.” In almost identical phraseology, Gary Steiner, *Anthropocentrism and Its Discontents: The Moral Status of Animals in the History of Western Philosophy* (Pittsburgh: University of Pittsburgh Press, 2005) 43, calls the passage “the first fundamental distinction in the West between human beings and animals.”
- 8 The life of Achilles is in a sense a meditation upon this contrast, and the hero’s pronouncements on his life that occur in the *Iliad* bear this out, in particular his observation to Priam, in the course of the scene of the ransoming of Hector’s body, that lamentation is useless because the gods have designed human life to be full of sadness while their own is free of cares (*Iliad* XXIV. 524–526).

- 9 For discussion of the place of non-human animals in the Homeric epics, see Otto Körner, *Die homerische Tierwelt* (Munich: Bergmann, 1930) and Helmut Rahn, “Tier und Mensch in der homerischen Auffassung der Wirklichkeit,” *Paideuma* 5 (1953) 277–297 and 431–480 and “Das Tier in der homerischen Dichtung,” *Studium Generale* 20 (1967) 90–105. Although Körner maintains that the Homeric corpus makes some primitive attempts to divide animals into species, classes and orders, he acknowledges that the Homeric understanding of these classifications does not correspond closely to the modern sense in which these terms are used.
- 10 The Homeric vocabulary of animal and human psychology is studied in Eveline Nicolay, “Homère et l’âme des bêtes,” in Friedrich Niewöhner and Jean-Loup Sebon, eds., *Die Seele der Tiere* (Wiesbaden: Harrassowitz, 2001) 51–58. Nicolay (58) believes that study of Homer’s animal vocabulary suggests that the authors of the Homeric corpus did not view humans and non-human animals as totally dissimilar, but believed that they share some psychic attributes.
- 11 On the nature of pre-Socratic thought, see Edward Hussey, *The Presocratics* (New York: Scribners, 1972) 1, “‘Science’ and ‘philosophy’, as activities distinguishable from one another and from other ways of thinking about the world, came into existence only at the end of the Presocratic period. What gives the group of Presocratics such unity as it possesses is rather that all those men were involved in the movement of thought which led to the separation of science and philosophy from one another and from other ways of thinking.”
- 12 On this unity, see Urs Dierauer, “Das Verhältnis von Mensch und Tier im griechisch-römischen Denken,” in Paul Münch and Rainer Walz, eds., *Tiere und Menschen: Geschichte und Aktualität eines prekären Verhältnisses* (Paderborn: Schöningh, 1998) 41, “Es ist klar, daß bei dieser Betrachtungsweise kein prinzipieller Unterschied zwischen Menschen und Tieren bestehen kann, da sie sich ja aus den gleichen Grundbestandteilen zusammensetzen.” A helpful discussion of issues of “one” vs. “many,” or of “unity” vs. “plurality” in Pre-Socratic thought is found in Michael C. Stokes, *One and Many in Presocratic Philosophy* (Cambridge: Harvard University Press, 1971).
- 13 Guthrie 19.
- 14 Diogenes Laertius, *Lives of the Philosophers*, Prologue 3, φάναι τε ἐξ ἑνὸς τὰ πᾶντα γίνεσθαι καὶ εἰς ταὐτὸν ἀναλυέσθαι (“and [Musaeus] said that all things come from one thing and are dissolved into the same thing”). On the movement, in early Greek philosophical thought, from a unitary view of creation to one in which differences were emphasized, see Stephen T. Newmyer, “Being the One and Becoming the Other: Animals in Ancient Philosophical Schools,” in Gordon Lindsay Campbell, ed., *The Oxford Handbook of Animals in Classical Thought and Life* (Oxford: Oxford University Press, 2014) 507–534.
- 15 Theophrastus, *De sensibus (On the Senses)* 25 = DK24A5, ἄνθρωπον γάρ φησι τῶν ἄλλων διαφέρειν ὅτι μόνον ξυνίησι, τὰ δ’ ἑτέρα αἰσθάνεται, οὐ ξυνίησι δέ (“for he says that man differs from other [animals] in that only man understands, while the others perceive but do not understand”). Citations in this study from the extant fragments of the pre-Socratic philosophers, and from later sources who cite or discuss their work, follow the numbering in Hermann Diels and Walther Kranz, eds., *Die Fragmente der Vorsokratiker*, 6th edn. (Berlin: Weidmann, 1951–1952) (= DK).
- 16 On Anaxagoras’ doctrine of νοῦς, see DK59B12.
- 17 Aristotle, *De partibus animalium (On the Parts of Animals)* 687a7–9, says that Anaxagoras argued incorrectly in maintaining that the possession of hands

renders the human being the most intelligent of animals, when it is logical to maintain that man has hands because he is the most intelligent of animals.

- 18 DK64B2, πάντα τὰ ὄντα ἀπὸ τοῦ αὐτοῦ ἐτεροιοῦσθαι καὶ τὸ αὐτὸ εἶναι (“all living things are altered from the same thing and are the same thing”).
- 19 The place of Pythagoras in the history of vegetarian thought is discussed in Johannes Haussleiter, *Der Vegetarismus in der Antike* (Berlin: Töpelmann, 1935) 97–157, and in Daniel A. Dombrowski, *The Philosophy of Vegetarianism* (Amherst: University of Massachusetts Press, 1984) 35–56, and in his recent study, “Philosophical Vegetarianism and Animal Entitlements,” in Campbell, *The Oxford Handbook of Animals in Classical Thought and Life* 537–541.
- 20 Ancient accounts vary as to what creatures could pass into what other creatures through transmigration. Plato, who discusses the concept in the *Phaedo*, *Phaedrus*, *Republic*, *Timaeus* and *Laws*, offers contradictory accounts. In the *Phaedo* (81e–82b), he states that human beings may take on the form of any other animal species, while in the *Republic* (620d), he states that humans prefer to be reborn as animals that most resemble their former manner of life, as the singer Orpheus chose reincarnation as a swan. He also relates in that dialogue that animals may elect to be reborn as human beings. It is interesting to note that Plato allows Socrates to offer the disclaimer that no sensible person would place too much reliance on such theorizing (*Phaedo* 114d), although he insists that, since the soul is immortal, something along the lines of what he has set forth concerning metempsychosis is likely to be true. Diogenes Laertius (*Lives of the Philosophers* VIII. 77) cites two verses of Empedocles in which that philosopher claims to have been in various incarnations a boy, a girl, a bird, a bush and a fish.
- 21 The contribution of Empedocles to vegetarian thought is treated in Haussleiter 157–163. John Rundis, “The Vegetarianism of Empedocles in Its Historical Context,” *The Ancient World* 29 (1998) 19–35 argues that it is a mistake to view Empedocles’ vegetarianism as ethically motivated. It should rather be seen as a political statement opposing traditional aristocratic identification of animal sacrifice with socially prominent citizens who claim first and larger portions of meat.
- 22 On the centrality of the idea of “kinship” to later Greek notions on human and non-human relations, especially as the idea figures in Stoic ethics, see [Chapter 5](#), pp. 81–84.
- 23 Daniel W. Graham, ed. and transl., *The Texts of Early Greek Philosophy: The Complete Fragments and Selected Testimonies of the Major Presocratics, Part I* (Cambridge: Cambridge University Press, 2010) 5–6, writes of the preservation of the texts of the pre-Socratics, “They became scarce and were often hard to find even for ancient Greeks after Aristotle’s time. They have disappeared completely, except for reports about them (‘testimonies’) by ancient sources and quotations (‘fragments’) imbedded in other works or in a few surviving scraps of manuscripts. The task left to a modern reader is to reconstruct from these *disiecta membra* an understanding of the original thought—no small challenge.”
- 24 Renehan 240.
- 25 Renehan 240.
- 26 Giuliana Lanata, “Antropocentrismi,” in S. Castignone and G. Lanata, eds., *Filosofi e Animali nel Mondo Antico* (Pisa: Edizioni ETS, 1994) 26, calls the idea that only humans are rational a “luogo commune almeno a partire del quinto secolo.”
- 27 The policy of charging fees for instruction contrasted with the practice of

Plato's Socrates who affects admiration for the Sophists Gorgias, Prodicus and Hippias who go about any city not only convincing the young to pay for their instruction but making them grateful for the privilege (*Apology* 19e). The Sophists may have felt justified in charging fees since they viewed their program as immediately useful and practical, aimed at teaching individuals to be successful in life, rather than theoretical and not liable to practical application.

- 28 W. K. C. Guthrie, *The Sophists* (Cambridge: Cambridge University Press, 1971) 4. Guthrie's study of the Sophists first appeared as the third volume of his work, *A History of Greek Philosophy* (Cambridge: Cambridge University Press, 1969). Other useful introductions to the Sophists are provided by Harold Barrett, *The Sophists* (Novato, CA: Chandler and Sharp, 1987) and Jacqueline de Romilly, *The Great Sophists of Periclean Athens* (Oxford: Clarendon Press, 1992; transl. by Janet Lloyd).
- 29 On the part played by the views expressed by the Sophist Protagoras in the Platonic dialogue bearing his name toward the development of the "man alone of animals" concept, see [Chapter 3](#), pp. 30–36.
- 30 Guthrie 52–53.
- 31 The power of the Greek language, specifically as spoken by the Athenians, as a reflection of the superiority of Greek culture over that of other peoples is a frequent theme of the Sophist Isocrates (436–338 bce); see, for example, his *Antidosis* 293–294; his *Panegyric* 48; and his *Nicocles* 5–9. The passage from the *Antidosis* argues that speech (λόγος, *logos*) raises humans above the other animals and the barbarians, while the passage from the *Panegyricus* states that speech singles man out from all living creatures.
- 32 Lau 32 observes on this point, "... Die Sophistik ... vor allem hebt ihn [i.e., den Menschen] heraus als das autonome, seine eigenen Wertmaßstäbe setzende Subjekt."
- 33 On the primacy of *logos* understood as "speech," see Heath 6–17. Heath argues that the Greeks distinguished man from other animals in his unique possession of articulate *speech* before they contrasted man as the sole animal possessing *logos* understood in its other sense of *reason*.
- 34 Lau 33 remarks of this Sophistic notion, "Damit ist die Stellung des Kulturmenschen gegenüber der Natur festgelegt."
- 35 De Romilly 163 reminds us that in the fifth century bce, the topic of the rise of humankind to a civilized state was not restricted to the Sophists but was "at the time a theme much in vogue, used by many different authors." She cites, as examples in literary authors, Aeschylus, *Prometheus Bound* (436–506), Sophocles, *Antigone* (332–375), and Euripides, *Supplikes* (201–218). See the epigraph to the present chapter for a famous appearance of this idea in Greek drama.
- 36 For a discussion of ancient views on the technological skills of non-human animals, see Stephen T. Newmyer, "Tool Use in Animals: Ancient and Modern Insights and Moral Consequences," *Scholia* N. S. 14 (2005) 3–17.
- 37 De Romilly 98. On relativism in Sophistic thought, see [Chapter 3](#) below, pp. 34–36.
- 38 Heath 17–24, 185–192, 197–206.

3 “Man Alone of Animals”

Three Classic Ancient Texts

Man is the measure of all things, of those that are,
that they are, and of those that are not, that they are not.

(Protagoras, DK80B1)

Our examination in the previous chapter of pre-fifth-century Greek observations on the nature of humankind not only supports the contention of recent classical scholarship that the Greeks had frequent recourse to assertions of “otherness” or “differentness” in their attempts to define the human’s place in the divine, human and animal worlds, but suggests as well that what might be termed “otherness models” can be isolated in these earliest, tentative attempts to identify humans’ place in creation. The model “god vis-à-vis man” that predominates in early epic observations on humankind gave way in time to a “man vis-à-vis animals” model traceable already in the fragments of certain pre-Socratic philosophers and ultimately enshrined in Sophistic teachings at the lower end of the time period examined in the previous chapter. The shift from a preoccupation with the relation of humans to the divine to their relation to their fellow-animals signaled as well a shift from a concentration on the nature of humanity’s dependence on the gods to one of their dependence on themselves, a movement clearly observable in the contrast between the Hesiodic world view and that of the Sophists. This shift provided an impetus for the thoroughgoing anthropocentrism that would become prominent in Greek thought in the classical period and that would eventually prove so injurious to non-human animals when it came to be adopted by Aristotle and the Stoics, and allowed the increasingly human-centered Greeks to view humankind not only as different from non-human animal creation, but as superior to it, a point of view fostered by Sophistic accounts of human cultural advancement. It is noteworthy that, both in literary expositions of the otherness model in which humanity is contrasted to gods and in that

in which humanity is contrasted to non-human animals, we find repeated applications of the “man alone of animals” formula employed verbatim to bolster such claims of otherness.

The earliest exposition in extant Greek literature that survives in a developed form and in considerable detail of the otherness model in which the world of the divine is contrasted to that of humans, and in which humans are seen as heavily dependent upon the care and foresight of the gods for their success, in the manner of Hesiod’s explanation of the presence of justice in the life of man, is found in the *Memorabilia* of Xenophon (ca. 430–ca. 356 bce), a source that nineteenth-century *Quellenforschung* found problematic on the grounds that the passages in which discussions of mankind’s unique place in creation occur seem out of step with the subject matter and overall point of view of the remainder of the treatise, so much so that some scholars doubted the authenticity of the passages in question and even went so far as to obelize the passages as later additions.¹

The fourth chapter of the first book and the third chapter of the fourth book of his *Memorabilia*, the longest of Xenophon’s so-called Socratic writings, a somewhat rambling collection of what purport to be his “reminiscences” of his teacher Socrates’ lectures, along with accounts of Socrates’ opinions on miscellaneous topics offered in the course of discussions at which Xenophon does not claim to have been in attendance and which may reflect merely what Xenophon imagined Socrates might have said on those topics, set forth what may justly be termed the first extended statement of a rigorous anthropocentrism in Greek literature in which assertions that man alone of animals is endowed with intellectual and physiological capacities that single him out from the remainder of animal creation are set forth with doctrinaire precision.² While there is considerable overlap of material and manner of treatment between these two chapters in that both argue for the operation of divine “purpose” or “design” (γνώμη, *gnōmē*, I. 4. 4) in the lives of human beings, the earlier chapter (*Memorabilia* I. 4) focuses more closely on the theme of how the physiological and intellectual make-up of humans is, thanks to the plan of the gods, superior to that of other animal species, while the latter chapter (*Memorabilia* IV. 3) develops the idea that the make-up of the human body illustrates the working out of divine providence that has so arranged animal creation that the lives of all other animal species are designed to serve the needs of humankind. In both chapters, Xenophon’s comments betray the influence of ideas on the primitive state of mankind and on its rise to cultural supremacy over the remainder of animal creation that were commonly discussed in the fifth century bce, not least by the Sophists themselves, although the

exact source or sources of the claims of the “man alone of animals” type that appear in the two Xenophontean chapters, be that Socrates, some Sophist or Sophists, or even Xenophon himself, has been much debated.³

The first three chapters of *Memorabilia* I offer little hint of the topics that will be broached in the fourth chapter of the book, and present a vision of a Socrates whose philosophical principles differ somewhat from those that support his anthropocentric vision of humankind’s relation to the divine that Xenophon will develop in the fourth chapter. The first two chapters of the book constitute a defense of Socrates against the charges that ultimately led to the philosopher’s condemnation and that are set forth both in Xenophon’s *Apology of Socrates* and in Plato’s *Apology*, namely that Socrates did not believe in the gods acknowledged by the state, introduced new gods, and thereby corrupted the youth (*Memorabilia* I. 1. 1). Xenophon’s wording of the charges here differs little from that encountered in his own *Apology of Socrates* 10, and recalls at the same time the wording of the charges in Plato’s *Apology* 23b–c. Xenophon makes a case for Socrates’ conventional piety by mentioning his regular sacrifices, his belief in divination, and the trust that he placed in the famous “divine sign” (τὸ δαιμόνιον, I. 1. 2) that guided his actions, and he subsequently argues that a man of such natural piety would never offend against the gods. Indeed, Xenophon contends (I. 1. 11), Socrates’ piety was such that he did not venture to discuss that favorite topic of philosophers, “the nature of the universe” (περὶ τῆς τῶν πάντων φύσεως, I. 1. 11) and the laws that governed its operation, instead asking those who investigate such topics whether their knowledge of “human things” (τὰ ἀνθρώπεια, I. 1. 12) was so thorough that they felt moved to ignore human topics while investigating the divine. Socrates, in contrast, “speculated always on human affairs” (ἀντὸς δὲ περὶ τῶν ἀνθρωπίνων ἅει διαλέγετο, I. 1. 16), asking what was pious, what was just, what was prudent, what was courageous, and what constituted the opposites of these qualities. Xenophon’s point here is that Socrates rejected the philosophical program identifiable in the work of some pre-Socratics, judging the sorts of inquiries associated with nature philosophy to be at the very least irreverent, and either beyond the powers of human intelligence or even pointless to investigate.

Having set forth a picture of Socrates in which his great teacher emerges as a thinker preoccupied with ethical questions that do not entail extensive theological speculation, Xenophon lays aside his discussion of Socrates’ attitude toward the gods with the observation that Socrates believed, as most men do, that the gods have some concern for mankind (ἐπιμελεῖσθαι θεοὺς ἐνόμιζεν ἀνθρώπων, I. 1. 19),

while believing as well, in contrast to the view of most men, that the gods are omniscient (πάντα ἡγείτο θεοὺς εἰδέναι, I. 1. 19), knowing the words and deeds of man and providing signs to mankind of all things of concern to them.⁴ While Xenophon is eager to attribute to his master a piety exceeding that of his contemporaries, contrary to the charges of irreligion brought against him by his accusers, we are given no specific hints here of the sweeping claims of divine involvement in the lives of humankind intended to raise the human above all other animal species that are attributed to Socrates in the fourth chapter of the first book.

Even when viewed against other, somewhat later Greek claims of human superiority, in the human's intellectual and physiological endowments, to the rest of animal creation, Xenophon's vision of human superiority in *Memorabilia* I. 4 is breathtaking in its total refusal to countenance the possibility, which Aristotle in his biological treatises and even the Stoics acknowledged, that non-human species might possess some capacities superior to those of their human counterparts.⁵ Indeed, Xenophon is careful to include in his discussion only those human capacities that are totally lacking in non-human species. Nor does he countenance the view, advanced by Aristotle (*History of Animals* 588a18–31), that non-human species make up for their shortcomings with other capacities that function in a manner similar to those of human beings and that render them successful in their manner of life. This stance allows Xenophon to advance the position that humans must be viewed as living like gods, in comparison with the lowly status of non-human animals, being superior to them in both body and soul (κατάδηλον ὅτι παρὰ τὰλλα ζῶα ὥσπερ θεοὶ ἄνθρωποι βιοτεύουσι, φύσει καὶ τῷ σώματι καὶ τῇ ψυχῇ, I. 4. 14). Xenophon's account of Socrates' discourse on the topic of human superiority to other species at *Memorabilia* I. 4 purports to record a conversation that Xenophon witnessed between Socrates and Aristodemus, called "the little," an individual who does not appear elsewhere in the work of Xenophon but who is apparently the same individual, described in Plato's *Symposium* 173b as little and always shoeless, who attended the banquet described in the Platonic dialogue and who reported it to Apollodorus, who then recounted the speeches given at the banquet to a friend.

Xenophon's Socrates is motivated in chapter four to speak on the topic of human superiority upon learning that Aristodemus did not sacrifice to the gods or pray or trust the validity of divination (I. 4. 2). While one might explain the sudden appearance here of a discourse on divine concern for the lives of human beings as an expression of the conventional piety of Socrates that Xenophon had ascribed to Socrates

in *Memorabilia* I. 1, Socrates seems to betray in the fourth chapter a much greater interest in divine matters than one might have been led to expect, even if he does not speculate here on the “cosmic” issues that interested the pre-Socratics. After noting (I. 1. 19) that Socrates believed that the gods care for human beings and provide them signs on matters of interest to them, Xenophon now presents a vision of their direct, extensive and purposeful intervention in the lives of humans that consists predominantly of an unabashedly anthropocentric vision of man’s god-given superiority to other species.

Xenophon’s description in chapter four of man’s place in the divine plan has been called the first theologically dominated portrait of anthropocentrism in Greek literature.⁶ Indeed, one of the most striking features of Xenophon’s portrait of human–divine relations in chapter four is its decidedly teleological orientation, revealed already in the opening paragraphs of the chapter in which Socrates asks Aristodemus whether creatures that serve some useful end are not to be reckoned superior to creatures that appear to have no useful end (I. 4. 4). Moreover, Socrates continues, creatures that serve some useful end would seem to have been created with some design in the mind of their creator. Aristodemus is then asked whether it is not likely that the creator of man fashioned him for some useful purpose (ἐπ, ὠφελεία, I. 4. 5) when he endowed man with his various senses. These, like humans’ other features, appear to illustrate the operation of some forethought (προνοίας ἔργοις, I. 4. 6) on the part of the creator. This forethought is not restricted to the make-up of the human body but is observable as well in the case of other species, for the teeth of all animals are so designed as to allow for the successful grinding of food, while the elimination of bodily wastes is always effected by organs placed far from the senses (I. 4. 6). This must all be admitted to reflect deliberate design on the part of the creator (I. 4. 6). Similarly, the will in animal species to reproduce and to raise offspring would seem to suggest, Socrates argues, that the creator desires the perpetuation of living species (I. 4. 7).

Such evidences of purposeful action in the preservation and perpetuation of living species, Socrates contends, argue against any assumption of accident in the universe, and suggest rather the work of a master hand. When Aristodemus objects that he cannot detect the presence of “the powers” (τοὺς κυρίου, I. 4. 9) behind the arrangements of the universe, Socrates replies that because he cannot see his soul, he might equally well contend that he does nothing himself by design but acts rather by chance (I. 4. 9). In frustration, Aristodemus states that he does not mean to slight divinity (οἷτοι ὑπεροπῶτὸ δαιμόνιον, I. 4. 10), but he merely feels that the divinity

does not need his attention, for if he believed that the gods had any care for human beings, he would indeed not neglect them (I. 4. 11).

Socrates' reply to Aristodemus' expression of skepticism takes the conversation in a new direction that reveals that the true object of Socrates' observations on evidences of divine purpose and design in the make-up and lifestyle of living creatures is not after all the whole of animal creation, but specifically humankind itself as Xenophon's theological anthropocentrism comes to the fore in dramatic fashion. It becomes clear, in section eleven and in the remaining sections of *Memorabilia* I. 4, that the ultimate object of the gods' care is man himself: the teleological viewpoint discernible in Xenophon's thought, according to which the gods have taken care that the various anatomical features of living creatures, including teeth, eyelids and even the organs of elimination, are purposefully designed by the divinity to serve an end, is now applied specifically to the make-up of the human being who proves to be, however carefully the gods have provided for the needs of other animal species, the particular object of divine planning. The human is no longer grouped by Xenophon with other species, but is now singled out from them as the possessor of features, anatomical and intellectual, that are unique to the species. In the eleventh section of chapter four, Xenophon introduces the argument that "man alone of animals" has been favored by his creator with advantages that separate him from his fellow-animals.

The care that the gods expend for human beings is shown, in the first instance, Socrates asserts, in the fact that they have caused "man alone of animals" to have upright posture (μόνον τῶν ζῴων ἄνθρωπον ὀρθὸν ἀνέστησαν, I. 4. 11). This feature allows humans to avoid injury to their person. Moreover, while the gods have outfitted all animal species with the capacity for locomotion, they have given the human hands which render humans more fortunate than other creatures. While other animals have a tongue, the gods formed that of "man alone of animals" (γλωττῆν γε πάντων τῶν ζῴων μόνην τὴν τῶν ἀνθρώπων, I. 4. 12) to touch other parts of the mouth and thereby to produce articulate speech with which humans signal their desires to others of their kind. Finally, in Xenophon's catalogue of unique human advantages, Socrates observes that while other creatures mate at prescribed times of the year, only the human can engage in sexual activity all year long, and even into old age (I. 4. 12).⁷

The fact that the focus of Socrates' attention has shifted from the care of the gods for the welfare of all animalkind to the special care that they lavish upon human beings is most strikingly set forth for the reader in Socrates' fresh argument, introduced at I. 4. 13, that the

gods care not only for man's body but also for his soul, for they have implanted in him the finest sort of soul (τὴν ψυχὴν κρατίστην τῷ ἀνθρώπῳ ἐνέφυσσε, I. 4. 13). Only man's soul has been able to comprehend that the gods exist, and consequently to worship them (I. 4. 13).⁸ No other creature's soul is capable of planning against the ravages of hunger, thirst, heat and cold, or of tackling illness. No other soul learns through work, or remembers what it has learned or seen, providing protection against heat, cold, hunger and thirst (I. 4. 13). Socrates asserts that the conclusion to be drawn from these facts is clear: in comparison to other animal species, men live like gods. The component of the human soul that makes all of this possible now emerges in Socrates' comment that if humans had the body of an ox, it would do them no good without reason, and their hands would likewise be useless without human reason (I. 4. 14).

What we designated at the outset of this chapter as the "god vis-à-vis man" model in Greek discussions of human-non-human animal relations becomes increasingly evident in the latter paragraphs of *Memorabilia* I. 4, as Xenophon shifts his attention from the physical similarities and differences between human and non-human animals to the psychical differences, and indeed advantages, of the human animal over other species, differences that are shown to make human beings more like gods than like other animal species. All of this, Socrates asserts, demonstrates divine planning. Having made a case for the intellectual and physiological superiority of human beings in *Memorabilia* I. 4, Xenophon's Socrates shifts his gaze somewhat, in *Memorabilia* IV. 3, from the "god vis-à-vis man" model to the "man vis-à-vis animals" model, arguing in this latter chapter that all the ministrations of the gods are intended to assure that the lives of the remainder of animal species serve the needs of humankind. Xenophon claims (*Memorabilia* IV. 3. 2) that he attended a discussion on this theme between Socrates and Euthydemus, a Sophist who, Xenophon reports earlier, thought himself exceedingly wise and eloquent (*Memorabilia* IV. 2. 1) and who figures as the subject of the Platonic dialogue that bears his name. Euthydemus now serves as Socrates' interlocutor in this latter Xenophontean examination of human-non-human animal relations.

Socrates introduces this subject by asking Euthydemus whether he has ever taken note of how careful the gods have been to supply man with what he needs (εἰπέ μοι . . . ποτέ σοι ἐπὶ ἄλλῳ ἐνθυμηθῆναι ὥς ἐπιμελῶς οἱ θεοὶ ὧν οἱ ἄνθρωποι δέονται κατεσκευάκασι;, IV. 3. 3). When he replies that he has not, Socrates points out to him that the gods provided man with light to render his eyes useful, and darkness to give him rest at night. Likewise, the sun and stars fulfill man's

needs in allowing him to mark off months and seasons, while the earth furnishes man the food that sustains him, acts which, Euthydemus admits, are truly “human-loving” (πάννυ, ἔφη, καὶ ταῦτα φιλόανθρωπα, IV. 3. 5). Indeed, Euthydemus continues, he wonders whether the gods have in fact any agenda other than caring for human beings (ἐγὼ . . . τοῦτο σκοπῶ, εἰ ἄρα τί ἐστὶ τοῖς θεοῖς ἔργον ἢ ἀνθρώπους θεραπεύειν, IV. 3. 9). All that prevents him from drawing that conclusion, he states, is the fact that other animal species share those advantages.

Socrates’ reply to Euthydemus at this juncture takes the discussion in an entirely new direction, introducing a dimension to Xenophon’s portrayal of Socrates’ anthropocentric world view that had not been developed in the philosopher’s earlier exchange with Aristodemus and presenting a vision of “man” no longer as a biological entity but far more as a theological construct. Xenophon does not seek, as had many of the pre-Socratics, to ascertain man’s place in the hierarchy of animal creation but rather to suggest that man stands somehow outside that hierarchy. Socrates follows up on Euthydemus’ observation that other animal species appear to share the advantages that human beings enjoy by clarifying the relation between the species: other animals, he maintains, are accorded those benefits specifically so that they can be of service to humankind. Is it not obvious, the philosopher asks, that non-human animals are given life for the sake of man? (οὐ γάρ . . . φανερόν, ὅτι καὶ ταῦτα ἀνθρώπων ἔνεκα γίγνεται τε καὶ ἀνατρέφεται, IV 3. 10). It is remarkable that Socrates employs forms derived from the verb *χράομαι* (*chraomai*), “use, make use of,” on five occasions in the tenth section of chapter three (*χρημαίζονται*, *χρήται*, *χρήσιμα*, *χρῶνται*, *χρήσθαι*), as if to underline his point that non-human animals are intended by nature for human beings’ use and as such stand in a subservient relation to humans.⁹

When Socrates turns his attention to explaining how the gods have taken care to enable human beings to appreciate their manifold gifts to them, non-human animals disappear entirely from the discussion. Humans are able to enjoy the gifts of the gods and to appreciate their infinite variety and beauty, because the gods have given them reason (τὸ δὲ καὶ λογισμὸν ἡμῖν ἐμψῶσαι, IV. 3. 11). This allows humans to distinguish the good from the harmful, to share with other humans through speech an appreciation for nature’s gifts, to apprehend the gods’ indications of future events, and, through this appreciation for the workings of the cosmos, to worship and thank the gods for their bounty (IV. 3. 14). Indeed, Socrates asserts (IV. 3. 14), the soul of man partakes of the divine, more so than does any other feature of

humankind. Not the least fascinating aspect of this discussion is the degree to which it appears to belie Xenophon's earlier assertion (*Memorabilia* I. 1. 16) that Socrates concerned himself strictly with human affairs and eschewed speculation on the operation of the divine in human life. Moreover, the introduction of the topic of rationality, a divine gift which admittedly Xenophon does not specifically limit here to "man alone of animals," at the very least provides an early hint of the sort of claim that would prove central to later manifestations of the formula. Although, as we noted at the outset of our discussion of the *Memorabilia*,¹⁰ there is still no consensus on the source or sources of the views presented in the two Xenophontean chapters, claims of the intellectual superiority of humans over other animals and of human primacy in the cosmos would come to enjoy a robust life in Stoic anthropological thought.

Xenophon's rather extended discussion in the latter sections of *Memorabilia* IV. 3 of the special features of the human soul that allow people, by the will of the gods, to apprehend the workings of the divine leads to a promise on the part of Euthydemus that he will in future not neglect the worship of the divine or ignore the manifestations of the workings of the gods in human life, a promise that allows Xenophon to conclude the fourth chapter with further observations on Socrates' own piety and on his belief in the wisdom of honoring the gods. The topic of non-human animals disappears completely from Xenophon's narrative as he turns his attention from the topic of piety to that of justice that occupies *Memorabilia* IV. 4.

The uncompromisingly anthropocentric vision of the human's place in the hierarchy of animal creation presented in Xenophon's *Memorabilia* that envisions few human limitations because of the gods' concern for human welfare, and that assumes little responsibility on the part of humans for their own special status, while admitting no marks of superiority on the part of non-human animals, stands in marked contrast to the more complex and more nuanced anthropocentrism presented in the course of the so-called "Myth" set forth by Protagoras in the Platonic dialogue named for the Sophist (*Protagoras* 320c–322d), a passage that judges the "otherness" that divides the human being from other animals to be in part a reflection of humans' innate potential for greatness: what we have called the "god vis-à-vis man" model of human-non-human-animal otherness that we see in Xenophon,¹¹ in which man's primacy in the animal world is viewed as a consequence of his relation with and dependence upon the divine world, is replaced in the Platonic passage with what may be called the "man vis-à-vis animal" model of otherness, in which human participation and human ingenuity come to the fore. While

Plato's Protagoras, like Xenophon's Socrates, assigns a significant role to the gods in the rise of humankind from earliest times, Protagoras' focus, unlike that of Xenophon's Socrates, who emphasizes divine forethought and heavenly gifts in humankind's favored status, is upon the ascent and progress of humans as social beings that result from their technical achievements, their sense of justice and their reason, with the manifold advantages that it accords to humankind. Plato's Protagoras does not deny that non-human animals excel their human counterparts in some of their endowments, a possibility ignored in Xenophon, but the Sophist is intent upon demonstrating how man came to outstrip other species through those endowments that are unique to human beings.

It might be argued that discussion of Plato's account of Protagoras' vision of the earliest stages on human and non-human animal life should preferably precede discussion of Xenophon's account in the *Memorabilia*, if, as some scholars maintain, Plato has borrowed elements from Protagoras' now-lost treatise *On the Early State of Things* mentioned by Diogenes Laertius (*Lives of the Philosophers* IX. 55), which might suggest that the material contained in Protagoras antedates material in Xenophon since Protagoras precedes Xenophon chronologically.¹² Yet we are faced here with the same difficulties that arise when we seek to isolate the sources of Xenophon's discussion in the *Memorabilia* since the exact relation between Plato's account of Protagoras' views and the Sophist's own views cannot be stated with certainty.¹³ Since the view of humankind in its relation to other animal species offered by Protagoras is more in line with assertions in subsequent Greek thought that attributed the presumed superiority of the human animal to other animal species specifically to the human's unique possession of the faculty of reason, which constitutes the source of that "otherness" or "differentness" claimed for humans by the Stoics and others, it seems reasonable to examine Protagoras' vision of humankind *after* the simpler vision of Xenophon's Socrates. While reason is said in Xenophon to allow man to contemplate the gods, to ponder the make-up of the cosmos, to appreciate the gifts of the gods to man, and to gain insight into his likeness to the gods, in Protagoras' account, reason leads man, through human ingenuity and technological prowess, to the development of culture, settled societies and political stability, that is, to those aspects of life that symbolize the unique primacy of the human in the hierarchy of animalkind. In Xenophon's account, reason allows man to focus on the divine. In Protagoras' account, reason is the springboard that allows humankind to look beyond the divine and to realize its human potential. Specifically, as Protagoras will argue in the latter portions of the

Myth, this rational faculty enables man to survive in the midst of wild beasts because man has the ability to cooperate, thanks to the capacity for friendship that his rationality accords him. In contrast to other animal species, man has a moral dimension. Man's settled political life is a product of what Plato's Protagoras calls his sense of "shame" (αἰδῶς, *aidōs*) and his sense of "justice" (δίκη, *dikē*) (*Protagoras* 322c).¹⁴

As Plato's dialogue opens, Socrates informs an unnamed friend that he has just been present when the renowned Protagoras, a man whom Socrates labels "the wisest of our time" (σοφωτάτῳ . . . τῶν γε νῦν, 309d), spoke at the house of Kallias. Socrates' young friend Hippocrates had informed him that the Sophist was a guest in Kallias' home, along with the Sophists Prodicus and Hippias. Hippocrates, fearing himself too young to approach the great Protagoras himself, asks Socrates to speak to the Sophist on his behalf since he is eager to be instructed by Protagoras. Socrates asks his friend what he hopes to achieve in becoming a pupil of Protagoras, and the young man replies that he would like to become a Sophist himself (312a). The older man then asks his friend if he is in fact clear as to what it means to become a pupil of a Sophist. When the young man confesses to being uncertain, Socrates asks him whether it is not potentially dangerous to submit oneself to such an individual (312c).

In response to Socrates' queries, Hippocrates remarks that, judging from the name itself, a Sophist is someone who has knowledge of wise matters (τοῦτον εἶναι τὸν τῶν σοφῶν ἐπιστήμονα, 312c). But carpenters and painters are likewise knowledgeable about wise matters, Socrates objects (312d). Of what matters, specifically, can the Sophist be judged knowledgeable? Perhaps, Hippocrates ventures (313d), such an individual is wise at making a clever speaker (ἐπιστᾶτην τοῦ ποιῆσαι δεινὸν λέγειν, 312e). When Socrates presses Hippocrates about the specific subject on which the Sophist makes a pupil clever, the young man admits that he has no answer, prompting Socrates to repeat his warning that it is dangerous to entrust oneself to someone of whom he is ignorant, for it is more risky to purchase ideas than foodstuffs (314a). He suggests therefore that the two of them attend Protagoras and hear what he has to say.

At the house of Kallias, Socrates asks Protagoras the question that he had posed to Hippocrates: what exactly does a student know if he submits to his tutelage? (318d). The Sophist replies that the student will come away a master of good judgment and capable of ordering his own home (318e–319a). Socrates replies that he understands this to mean that the pupil will become a master of "civic craft" (τήν

πολιτικὴν τέχνην, 319a); that is, he will become a good citizen. Protagoras acknowledges that this is precisely what he means (319a). Socrates objects that he doubts that this is in fact teachable. When the Athenian assembly seeks advice on ship building, it summons ship builders since the members of the assembly judge this to be a teachable skill, but when they debate matters of statecraft, anyone is allowed to speak, since the assembly considers every person equally worthy to do so because such matters are judged to be unteachable (319d). Socrates contends that “virtue” (ἀρετή, *aretē*, 320b) must be counted among such unteachables, and he asks the Sophist to demonstrate to the group how it is to be reckoned teachable. Protagoras agrees to enlighten the group, offering to provide an exposition of the topic either in the form of a “myth” (μῦθον, 320c) or of a “reasoned narrative” (λόγῳ, 320c). Given his choice by his listeners, he elects to deliver his account in the form of a myth, which he finds more agreeable for the topic at hand (320c).

Once, Protagoras begins, when only gods existed and there were still no “mortal creatures” (θνητὰ γένη, 320d), the gods formed those creatures from a combination of earth and fire and from all substances in which earth and fire are intermixed. They then instructed Prometheus and his brother Epimetheus to apportion to each creature those capacities (δυνάμεις, 320d) that were proper to it. Epimetheus convinced his brother to allow him to oversee this apportionment, and, in his enthusiasm and dullness of wit, he lavished his attention solely upon non-human animals, according strength of body to some, speed to others, and to yet others various means of self-defense. Some were formed small in size so as to hide readily, while others received wings to elude capture. Other gifts allowed animals to escape destruction from the elements, including fur and thick hide, while some others were allotted hooves and claws (321b). In addition to specialized bodily features, Epimetheus allotted to each animal its proper food, making some species herbivores and others carnivores. Those animals that formed the diet of others he caused to breed in great number, while animals that were not preyed upon by others he made less prolific themselves.

So lavishly had the thoughtless Epimetheus provided for the needs of non-human animals that he had forgotten to provide for human beings, leaving them “naked and barefoot and bedless and unarmed” (γυμνόν τε καὶ ἀνυπόδητον καὶ ἀστρωτον καὶ ἄοπλον, 321c). Because of Epimetheus’ careless apportionment, human beings, who were soon to emerge from earth, would be incapable not only of managing their own lives but of defending themselves against the considerable advantages of bodily strength and physical endurance with which

Epimetheus had endowed non-human animals. Up to this point in his mythic history of the early state of animalkind, Protagoras has offered a fairly comprehensive appraisal of the physiological advantages of non-human animals, that one aspect of interspecies “otherness” that Xenophon had ignored but which would figure prominently in subsequent expressions of anthropocentric prejudice in Greek texts.¹⁵ Protagoras’ purpose in enumerating the physiological excellences of non-human species is less in contributing to the debate than in paving the way for his account of how Prometheus undertook to rectify the uneven distribution of gifts to animal species that his foolish brother had arranged. It is interesting to note that Protagoras asserts that Epimetheus’ distribution left “other animals fully provided with everything” (ἄλλα ζῶα ἐμμελῶς πάντων ἔχοντα, 321c) even though he had in fact provided only *physiological* advantages to non-humans. It will be the task of Prometheus, in the remainder of Protagoras’ mythic account, to provide man with the *intellectual* superiority that will enable him to counter the physiological advantages of other species and in time to develop the societies and political institutions that reason lays open to “man alone of animals.”

Recent studies of Protagoras’ “Myth” in Plato have shown less interest in the Sophist’s comments on the relative intellectual and physiological excellences of human and non-human animals, or in his observations on the early state of humankind, than in his observations on human nature and on the qualities of human beings that enabled them to form settled societies.¹⁶ The passage has been viewed less as an important statement in the development of anthropocentric thought among the Greeks than as an exposition of political theory. It might be argued, however, that Protagoras’ view of man as a social being can be understood completely only when man is seen as an animal among animals, or, more specifically, as an animal that comes in time to outstrip other species, for Protagoras makes clear that before Prometheus had addressed his needs, man was in all respects inferior to other animals and was utterly destroyed by them because of the physiological advantages that non-humans enjoyed (ἀπώλλυντο οὖν ὑπὸ τῶν θηρίων διὰ τὸ πανταχῇ αὐτῶν ἀσθενέστεροι εἶναι, 322b). To provide man some sort of “salvation” (σωτηρίαν, 321c) in light of his inferiority in the animal kingdom, Prometheus stole “practical wisdom” (ἐντεχνον σοφίαν, 321c) and fire from Athena and Hephaestus, which afforded man the skills needed for daily life if not yet any political sagacity. Through these gifts, man came to have a “share of divinity” (ὁ ἄνθρωπος θείας μέτεσχε μοίρας, 322a): “man alone of animals” worshipped the gods and set up altars and statues to them (ζῶων μόνον θεοὺς ἐνόμισε καὶ ἐπεχίρει βωμούς τε ἰδρύεσθαι

καὶ ἀγάλματα θεῶν, 322a). Man then devised speech and, through his “skill” (τέχνῃ, 322a), he provided himself with housing, clothing, bedding and food. That is, man provided for himself all that had been given to other animals. It is remarkable that, in Protagoras’ account, man advances specifically because of his shortcomings vis-à-vis other animal species. What man lacked in physical prowess, he made up for in intellectual dexterity.

Although the “man alone of animals” formula appears verbatim only once in Protagoras’ mythic presentation, in the Sophist’s assertion that only man worships the gods (322a), the anthropocentric outlook embodied in the formula is the central idea upon which the latter portion of Protagoras’ Myth is predicated, for the Sophist will argue there that man’s advancement toward settled political life is the product of his rational faculty that manifests itself in his “technical prowess” (τέχνῃ, 322a). Up to this point, man had succeeded in providing for his bodily needs but had not been capable of resisting wild animals that are physiologically superior to him because he had not yet mastered the “technique of warfare” (τέχνη πολεμική, 322b).¹⁷ Now Zeus, fearing that mankind would perish because of its physical inferiority, sent Hermes to instill in mankind “shame and justice” (αἰδῶ τε καὶ δίκην, 322c) which were intended to facilitate the growth of cities and settled political life. Humans, Protagoras implies, survive through cooperation and friendship, which reflect a moral dimension absent from other species. All of the advantages that the human possesses over other species, ranging from the ability to construct houses to knowledge of how to live in societies, are products of *reason*, which is unique to human beings. It is noteworthy that Zeus instructs Hermes to give all human beings this sense of shame and justice since cities could not arise if only some humans were so endowed (322d). Non-human animals, in contrast, were endowed with various skills to various degrees, according to Epimetheus’ apportionment. Reason, in Protagoras’ account, exists in two types, the “practical,” which instructs man in providing for his physical needs, and the “political,” which allows him to develop settled political life.

Protagoras’s assertion that all men have a sense of shame and justice because of Zeus’ apportionment to mankind allows the Sophist to bring the discussion back to the original question of the teachability of “virtue” (ἀρετή, *aretē*). Protagoras explains to Socrates that while the state may consult experts on matters like carpentry, cities like Athens are willing to take advice from all persons on civic matters because all men partake of “justice and the remainder of civic virtue” (δικαιοσύνης τε καὶ τῆς ἄλλης πολιτικῆς ἀρετῆς, 323a). Once Protagoras’ exposition turns from topics relating to the contrast

between human and non-human animals to the teachability of virtue, the Sophist indicates that he will present his ideas not in myth but in argument (λόγον, 324d). Non-human animals henceforth disappear from the discussion.

Plato may have elected to allow his Protagoras to present a vision of the early state of humankind and of the place of non-human animals in man's rise to prominence in the form of a myth from a recognition that historical certainty on such matters was lacking, however fascinating Greek authors found the topic, but the anthropocentric tenor of Protagoras' thought in any case emerges clearly in Plato's Myth, as one would expect from the emphasis on human culture and society that characterized Sophistic teaching. In the final analysis, however, we are left uncertain as to Protagoras' own contribution to the speech that Plato ascribes to him.¹⁸ We are safe in concluding, however, that all of the ideas that the Sophist articulates in Plato's presentation might reasonably have been advanced by the foremost exponent of the intellectual movement that extolled the virtues of nature's only rational, culture-endowed animal.

The most famous statement associated with the name of Protagoras in ancient sources is problematic not because of issues of attribution, as in the case of many details in Plato's Myth, but rather because of issues of interpretation. The aphoristic declaration that stands as the epigraph to the present chapter, asserting that "man is the measure of all things," is attributed to Protagoras by a number of Greek authorities. While the aphorism is agreed to derive from Protagoras, its meaning has been the subject of scholarly debate and reinterpretation. In its complete form, as it appears in Plato, Diogenes Laertius and Sextus Empiricus, it states, as it is generally translated, that "man is the measure of all things, of those that are, that they are, and of those that are not, that they are not" (πάντων χρημάτων μέτρον ἔστιν ἄνθρωπος, τῶν μὲν ὄντων ὡς ἔστιν, τῶν δὲ οὐκ ὄντων ὡς οὐκ ἔστιν).¹⁹ In most instances, the text was cited in antiquity with little attempt at interpretation, leading to frustration on the part of modern scholars. Edward Schiappa, for example, has observed, "The statement's ambiguity has allowed it to be all things to all people, and it has a legacy of multiple and contradictory interpretations."²⁰ Modern animal rights philosophers have expressed dismay at the blunt anthropocentrism of the aphorism. Tom Regan, for example, has declared it the "common task" of ecologists, feminists and animal rights advocates to "bury Protagoras once and for all. Humans are *not* the measure of all things."²¹ However one interprets the individual words of the aphorism, which is in its essence a bold statement of Sophistic relativism, the implied exclusion of non-human animals from

the sphere of significant beings that Protagoras' aphorism assumes is unmistakable and offers a tempting target to animal rightists since it suggests that "man alone of animals" *matters*.

The problems of interpretation that render the aphorism so challenging focus primarily upon the meaning of the terms "things" (χρημάτων, *chrēmātōn*), "measure" (μέτρον, *metron*), and "man" (ἄνθρωπος, *anthrōpos*). Among ancient commentators on the aphorism, Sextus Empiricus (*Outlines of Pyrrhonism* I. 216) made the most concerted effort to interpret the ambiguous terms, arguing that Protagoras intended us to understand that what matters is how things appear to each person, and that the Sophist thereby introduced the principle of relativity. Adolfo Levi notes that ancient commentators unanimously interpreted the term "man" as Sextus does here, in the individual sense of a single man, rather than in the sense of humankind universally.²² Even the sense in which the concept of "things" is to be understood has proven troublesome to scholars. In his searching investigation of the aphorism, Laszlo Versenyi concludes that Protagoras intends to say that what matters is how human beings relate to goods and property. "In all these matters," he holds, "what is stressed is the connotation of *our* use of, dealing and living with, attitudes and relation to a thing, and not what that thing may or may not be in itself."²³ What matters, Versenyi concludes, is not what things are, but what they are to human beings in the world of humans.²⁴

In the second, somewhat less intensely studied half of the aphorism, we are confronted with yet another problem of interpretation. If we understand the word ὥς (*hōs*) in the latter half of the aphorism to mean "that," the aphorism asserts that the human being is the judge of the *existence* of things, but if we understand it to mean "how," the human being is then to be seen as the arbiter of the *essence* of things.²⁵ In either interpretation, however, we cannot fail to note the absence of the gods and of non-human animals in Protagoras' vision of a reality dictated or ordered by human beings, a point of view that may be taken as an extreme expression of Sophistic anthropocentrism. Without employing the formula, Protagoras offers here what amounts to a definition of what the "man alone of animals" concept meant to the Greeks.

The third of what may be termed "classic" expositions of this concept, one replete with verbatim occurrences of the commonplace, is found in a Roman context, in the first five chapters of the seventh book, with further development later in that book, of the *Naturalis Historia* (*Natural History*) of Pliny the Elder (23–79 ce). Although

Pliny's analysis, in the first chapters, of man in the hierarchy of animal creation opens with a frank acknowledgement of the manifold instances of frailty and shortcomings that nature has imposed on the human animal,²⁶ he reveals, even in the midst of his enumeration of human limitations, his pride and astonishment at the versatility and adaptability of humans which other animal species cannot rival, advantages afforded to humans primarily by their unique possession of a rational faculty. Pliny scholar Mary Beagon has observed that Pliny presents man in these chapters as "a paradox, a unique paradox," a being set apart from other species and yet occupying first place among species.²⁷ Indeed, Beagon argues, Pliny's central preoccupation in the seventh book of his encyclopedia, which functions as a kind of introduction to his zoological books (VIII–XI), is to show "what makes man human rather than what makes him an animal."²⁸

While in no sense the product of original scientific investigation, the *Natural History* is a monument to Pliny's indefatigable industry and diligence.²⁹ In the Preface to the first book, he tells his reader that his subject is "the nature of things, that is, life" (*rerum natura, hoc est vita*, *NH* Praefatio 13), and he claims that his encyclopedia contains twenty thousand facts culled from two thousand books (*NH* Praefatio 17). Recent scholarship has done much to dispel the long-held notion that the *Natural History* is merely a storehouse of scientific misinformation set forth in an endless succession of far-fetched anecdotes and clothed in a literary style that borders on absence of style. The work is now understood to present a relatively coherent and philosophically imbued vision of the created world and of its components, and of the place of the human animal in creation.³⁰ Beagon has called attention to "Pliny's Stoic-inspired vision of human life in nature."³¹ In the opening sections of his second book, where he offers an overview of the nature of the world and of the relation of the divine to the world, Pliny states as a kind of first principle the belief that the world must be reckoned a divinity (*mundum . . . numen esse credi par est*, *NH* II. 1). He complains later (*NH* II. 14–27) that men spend too much time speculating on the nature of god when divinity consists in fact of man aiding man (*deus est mortali iuvare mortalem*, *NH* II. 18). God is thus not so much an entity as a power in nature that manifests itself through nature. Pliny remarks on the "power of nature" (*naturae potentia*, *NH* II. 28) at the end of his characterization of the world, and later in that book, he comments on the "divine power of nature spread through the universe" (*diffusae per omne naturae numen*, *NH* II. 208).

Pliny's idea that nature is itself a kind of divinity and that god is less a distinct entity than a force permeating the natural world,

reflects the theological cosmology of the Stoics. In his life of Zeno, founder of Stoicism, Diogenes Laertius reports that Zeno held that “the substance of god is the entire world and the heaven” (οὐσίαν δὲ θεοῦ Ζήνων μὲν φησι τὸν ὅλον κόσμον καὶ τὸν οὐρανόν, *Lives of the Philosophers* VII. 148), a view that he attributes as well to the Stoics Chrysippus and Posidonius. Because the complexity of the created world suggested some sort of intelligent design, the Stoics identified a force, variously termed providence or reason, that exercises what Beagon has termed “a benevolent purpose in making everything perfectly adapted to man’s needs.”³² This quintessentially Stoic notion is articulated in the opening paragraph of Pliny’s seventh book, where he singles out “man, for whose sake great nature seems to have created all other things” (*homini, cuius causa videtur cuncta alia genuisse natura magna*, *NH* VII. 1). The belief that the world was created for the use of humankind was not of course original with the Stoics, but formed rather a fundamental tenet of Greek anthropocentrism from the earliest stages of Greek philosophical speculation, although no Greek philosophical sect put the idea to better use than did the Stoics in the formation of their vision of humankind’s relation to the rest of creation, not least to non-human animals.³³ The idea exercised a profound influence upon Pliny’s conception of human–non-human-animal relations that led him in the opening chapters of the seventh book of his *Natural History* to resort frequently to assertions of the “man alone of animals” type in his delineation of how nature favors human beings over all other animals.

Pliny’s affecting portrait of the human animal at the moment of birth reveals the accuracy of Beagon’s characterization of his view of man as a “unique paradox.” While nature created everything for man’s use, she exacted a heavy price, according to Pliny, for the gifts that she bestowed (*saeva mercede contra tanta sua munera*, VII. 1), acting rather less like a kind parent than a cruel stepmother. She caused “man alone of animals” to be reliant on accoutrements derived from outside himself (*unum animantium cunctorum alienis velat opibus*, VII. 2), while furnishing other animal species with fur, hair, claws, feathers, and other protective coverings to ward off heat and cold and protect against enemies. On the day of his birth, “man alone of animals” is cast forth on the ground naked and on the point of weeping (*hominem tantum nudum et in nuda humo natali die abicit ad vagitus statim et ploratum*, VII. 2). Indeed, Pliny asserts, no other animal is so given to tears (*nullumque tot animalium aliud pronius ad lacrimas*, VII. 2). The heavy irony of the human situation is not lost on Pliny, who observes that no other animal bears the chains that fetter helpless human beings following birth, for the human being, the

animal that will come to rule over other animals (*animal ceteris imperaturum*, VII. 3), is bound hand and foot by nature-imposed limitations.

Just as the human being is the animal least well equipped by nature from birth, so he is the animal least able to cope with the challenges that confront him in his first years of life. Whereas all other species are from birth aware of the physiological properties that make them naturally adapted to the lifestyle that they must pursue, the human knows nothing except through education (*hominem nihil scire nisi doctrina*, VII. 4), with the exception of the innate capacity to weep (*non aliud naturae sponte nisi flere*, VII. 4). “Man alone of animals” according to Pliny, has the capacity to grieve (*uni animantium luctus est datus*, VII. 5). At this point in his portrait of the early painful stages of human advancement, Pliny adds to his catalogue of *physiological* shortcomings that limit human beings some discussion of the *emotional* dimension of humankind that he judges to be a contributing factor to the innate unhappiness that characterizes the human animal. Man’s natural tendency to grieve causes man alone of animals to care about the disposition of his body at death and about what will happen to him after death (*uni sepulturae cura atque etiam post se de futuro*, VII. 5). Significantly, Pliny does not regard the human’s *emotional* dimension as an entirely positive feature.³⁴ No animal desires enjoyments more than does man, and none is more fearful or subject to greater rages (*nulli pavor confusior, nulli rabies acrior*, VII. 5). Indeed, no other animal suffers so much harm from its own kind (*homini plurima ex homine sunt mala*, VII. 5).³⁵ Already in his second book, in the course of his discussion of the divinity of nature, Pliny had argued that no creature may be considered more miserable than the human being (*nihil . . . miserius homine*, II. 25) because, while other animals concern themselves solely with the means of survival (*sola victus cura est*, II. 25), human beings are preoccupied with glory, ambition, money and thoughts of death, concerns that are byproducts of the emotions. Yet Pliny concludes this discussion of man’s slavery to his emotions with the observation that only in the fact that non-human animals are not preoccupied with these desires can they be reckoned above human beings (II. 25).

The situation of man in the scheme of animalkind would seem to be rather hopeless, if we are to accept Pliny’s vision of the physiological and emotional dimensions of the human being that he sets forth in the first five chapters of *Natural History* VII, were it not for the one supreme advantage that the human animal possesses over other species. Following his comments on the frailties traceable in “man alone of animals,” Pliny launches into a lengthy discussion of the

racas, customs and reproduction of human beings (VII. 6–67). In these sections, Pliny turns from his somber picture of man's limitations to an admiring account of the variety and complexity of the human animal, which stands in stark contrast to the uniformity of other animal species. No two human beings look exactly alike, he notes (VII. 8), and only humans can mate and give birth at any time of year (VII. 38). Nature, he observes, created such variety to be a wonder for human beings (*haec . . . nobis miracula fecit natura*, VII. 32). In the course of his treatment of the mechanics of human reproduction, Pliny singles out what he considers to be the foremost wonder of the human being, the fact that man surpasses all other species in his agility of mind. While humans are physiologically inferior to other species, and are brought to suffering by their emotions, their intellect surpasses that of their fellow animals. In his discussion of the transmission of characteristics by human parents to their offspring through the process of thought, Pliny argues that this would not be possible without "the quickness of thoughts, speed of mind and variety of intellect" (*velocitas cogitationum animique celeritas et ingeni varietas*, VII. 52) that distinguish the human animal, in contrast to the properties of the minds of other animals that are "unalterable and uniform among them all, according to the species of each" (*ceteris animantibus immobiles sint animi et similes omnibus singulisque in suo cuique genere*, VII. 52). The distinction that Pliny appears to draw here is between what might be called instinctual behaviors in non-human animals that do not admit of variation but arise from "minds" (*animi*) that are pre-programmed by nature to produce only certain results, and the minds of human beings that are supple and quick because man possesses highly developed *ratio* ("reason") that makes man nature's inventor, technician and manipulator. Man's reason places him above the rest of animalkind, although man's emotional excesses taint this favored status. Man is supreme but flawed.

In some respects, the picture of humans among the animals presented in Pliny's *Natural History* is the most remarkable of the three examined in the present chapter. While none of the claims of human uniqueness made by Pliny that employ the "man alone of animals" formula is unparalleled in Greco-Roman sources, both the frequency with which the formula is employed and the fact that Pliny uses the formula to make claims for human uniqueness in aspects of humankind's *intellectual*, *physiological* and *emotional* make-up, are striking. Also noteworthy is the fact that only Pliny, among the three sources examined here, employs the "man alone of animals" formula in an "inverted" manner, to argue that humans are unique in being subject to certain shortcomings and failings. Even in his portrait of the

developed mental powers of the human being, he is careful to state that what makes humans intellectually unique is their agility of mind; that is, humans differs from other animals in the *degree* of their mental dexterity, although other species possess such properties of mind as are needed to allow them to navigate their lives successfully. Pliny offers ultimately a more ambiguous and less robust vision of the human at the pinnacle of animal creation than we saw in Xenophon or Plato.³⁶ Still, in the final analysis, Pliny, the Stoic-inspired naturalist, accepts that sect's doctrine that humankind is nature's finest production and most glorious animal, for whose use all other species are created, and that humans surpass other animals principally in the strength of their intellect. He subscribes to the view that reason is the defining criterion for humanness. The power of this idea in Greco-Roman debate on human–non-human-animal relations is examined in the following chapter.

Notes

- 1 Sherwood Owen Dickerman, *De Argumentis Quibusdam apud Xenophontem, Platonem, Aristotelem Obviis e Structura Hominis et Animalium Petitis* (Dissertation: Halle, 1909) long ago pointed out the apparent discrepancies in subject-matter and point of view between these sections of the first and fourth books of the *Memorabilia* and the remainder of the treatise, noting (5), “*Hae disputationes non uno modo singulares sunt. Nam alias ubicumque agitur de hominum usu et consuetudine, in his solis res divinae tractantur; explicatur scilicet quae sit deorum providentia et quas rursus gratias homines iure meritoque referre debeant.*”
- 2 On the basis of these Xenophontean chapters, Lau 53–54 declares Socrates, as he is here portrayed, to be “der erste literarisch faßbare Anthropozentriker der europäischen Geistesgeschichte.”
- 3 The treatise of Dickerman, cited in note 1 above, devotes considerable attention to isolating the sources of the anthropological assertions of Xenophon. Still, he concludes (48) that the question of the ultimate source or sources must remain up in the air, although he does seem drawn to earlier assertions that Diogenes of Apollonia may be the source of a number of Xenophon's claims of human superiority over the remainder of animal creation. On the possible contribution of Diogenes of Apollonia to the “man alone of animals” debate, see [Chapter 2](#) above, pp. 13–14. Olof Gigon, *Kommentar zum ersten Buch von Xenophons Memorabilien* (Basel: Friedrich Reinhardt, 1953) 126, remains uncertain on Xenophon's sources, “Daß Xenophon schon zubereitete Materialien vorfand, ist uns sicher. Wer sie zubereitet hat, wissen wir nicht.” Dierauer, *Tier und Mensch im Denken der Antike* 49, observes that these Xenophontean chapters “bestimmt größtenteils Gedanken des fünften Jahrhunderts aufnehmen.” Lau 52n159 also raises the possibility of Xenophon's dependence on Diogenes of Apollonia, but remains unwilling to speculate himself.
- 4 Gigon 24–25 remarks of the assertions in *Memorabilia* I. 1. 19, “Unser Text gehört zu den ältesten griechischen Zeugnissen für die Lehre der Allwissenheit und Allgegenwart der Götter.”

- 5 For Greek and Roman expressions of the idea that non-human animals are superior to human beings in at least some of their physiological endowments, see [Chapter 6](#), pp. 108–109. Dickerman, *De Argumentis* 48–73, contains a detailed examination of Greek and Roman sources that argue for the physiological superiority of non-human species over human beings, with parallel texts illustrating similarities in wording and ordering of examples of the anatomical advantages of non-human species that suggest some early, common sources for many such texts. See also the useful discussion in Dierauer, *Tier und Mensch im Denken der Antike* 48–52, on the topic “Ist der Mensch ein Mängelwesen?”
- 6 Dierauer, *Tier und Mensch im Denken der Antike* 52, “Es ist dies zum ersten Mal in der griechischen Literatur, daß uns eine so enge Verbindung von Theologie und Anthropozentrismus begegnet.”
- 7 This sexual dexterity of human beings was not always praised in ancient literature. In Plutarch’s humorous dialogue *Gryllus*, a reworking of Homer’s scene of Odysseus’ visit to Circe (*Odyssey* X. 136ff), the talking pig Gryllus remarks (990C–991A) that, while non-human animals mate in season and limit themselves to their own kind, humans mate with other species and are fond of homosexual unions, which is unknown, Gryllus contends, among non-human animal species. Gryllus’ contention that non-human animals are strictly heterosexual is not true. See, for example, Bruce Begemihl, *Biological Exuberance: Animal Homosexuality and Natural Diversity* (London: Profile Books, 1999).
- 8 Somewhat surprisingly, the question of the religious yearnings of non-human animals was widely discussed in ancient animal lore, and has resurfaced in current ethological literature. See Stephen T. Newmyer, “Paws to Reflect: Ancients and Moderns on the Religious Sensibilities of Animals,” *QUCC* 75, 3 (2003) 111–119. See also below, [Chapter 6](#), pp. 111–112.
- 9 Lau 54 correctly views this word (χράομαι) as indicative of Xenophon’s view that human beings exercise dominion or mastery over non-human species, “Der Gedanke des Gebrauches wird hier wie bei Aristoteles mit dem der Herrschaft verbunden.”
- 10 See note 3, above.
- 11 See p. 52, above.
- 12 On Protagoras, see above, [Chapter 2](#), p. 17. Some recent discussions of earlier Greek views on man’s place in the hierarchy of animalkind and of the relative advantages of humankind and of the remainder of animalkind have chosen to discuss the Platonic representation of Protagoras’ views before discussion of Xenophon’s account of Socrates’ views as recounted in the *Memorabilia*. See for example Dierauer, *Tier und Mensch* 37ff. and Lau 32–38 and 52–54.
- 13 There remains much uncertainty on this issue. Already a century ago, Dickerman, *De Argumentis Quibusdam* 83–90, noted that scholars before him had suggested various sources for Protagoras’ views, including Antisthenes, the Sophist-educated follower of Socrates. Dickerman ultimately concludes that the material in Plato is original with Protagoras (88). Guthrie, *In the Beginning* 140n8, declares it pointless to recapitulate previous discussion of the topic of sources, but he notes that the style of Protagoras’ narrative in Plato is poetic and decidedly non-Platonic, while the views on the early state of man might reasonably be ascribed to Protagoras. It seems “far-fetched” to him to assume that Plato has invented the material and merely placed it in the mouth of Protagoras. He concludes, “We are fairly safe in thinking of this as an authentic

representation of Protagoras' views. . . ." In contrast, Joseph P. Maguire, "Protagoras . . . or Plato? II. The Protagoras," *Phronesis* 22 (1977) 113–114 argues that the "meagre evidence we have for a Protagorean treatise of any sort on civilization is, by itself, less than cogent," since the title of the treatise, recorded by Diogenes Laertius as *On the Early State of Things*, may have been extrapolated from the passage in Plato. He also feels that the Protagorean treatise as named in Diogenes might have dealt with politics and not civilization. He considers the Platonic details in the myth to be "pretty impressive" (120). Juha Sihvola, *Decay, Progress, the Good Life? Hesiod and Protagoras on the Development of Culture* (Helsinki: Societas Scientiarum Fennica, 1989) 91, notes the complexity of attempting to determine what is genuine Protagorean theory in Plato, and she concludes that much of Protagoras' speech in fact consists of fifth-century commonplaces with a decidedly generic feel. More recently, Ugo Zilioli, *Protagoras and the Challenge of Relativism: Plato's Subtlest Enemy* (Aldershot: Ashgate, 2007) 93, notes that some have concluded that Plato relied on Protagoras' own works in composing his account, and concludes, "It might well be so, but we lack solid grounds for saying that it is definitely so, having lost Protagoras' original books."

- 14 On the meaning of "shame" (αἰδῶς, *aidōs*; αἰσχυνή, *aischunē*) and its place in the arsenal of Greek emotions, see Bernard Williams, *Shame and Necessity* (Berkeley: University of California Press, 1993) *passim* and David Konstan, *The Emotions of the Ancient Greeks: Studies in Aristotle and Classical Literature* (Toronto: University of Toronto Press, 2005) 91–110. According to Williams (82), the experience of shame is the feeling that results when one is observed by the wrong people at the wrong time. Thus, a sensation of inappropriateness is always present. Douglas Cairns, *Aidōs: The Psychology and Ethics of Shame in Ancient Greek Literature* (Oxford: Oxford University Press, 1993) 1, calls the term "notoriously difficult" to define as the Greeks understood it, and he concludes, like Williams, that it entails a feeling of sensitivity for one's self-image before the gaze of others. On emotions in animals, see [Chapter 7](#), pp. 121–133.
- 15 On the part played by physiological superiority in human and non-human animals in claims of the "man alone of animals" type, see below, [Chapter 6](#).
- 16 Sihvola 98 argues that it would be a mistake to consider Protagoras' "Myth" to be a historical account of the rise of human civilization, a subject in which, Sihvola maintains, Protagoras had no interest in the present context. What interests the Sophist, in her view, is the question of how political life arose. Similarly, Patrick Coby, *Socrates and the Sophistic Enlightenment: A Commentary on Plato's Protagoras* (Lewisburg, PA: Bucknell University Press, 1987) 53, argues that Protagoras is concerned with demonstrating how man acquired technical skills through the gift of Prometheus and justice through the gift of Zeus. Non-human animals and the gifts that Epimetheus had bestowed upon them scarcely figure in Coby's discussion. Deborah Levine Gera, *Ancient Greek Ideas on Speech, Language, and Civilization* (Oxford: Oxford University Press, 2003) 127–147 examines the Protagoras Myth for insights that it provides about the "protolanguage" of man and about the characteristics of man's original language as these may be gleaned from the presentation of Protagoras. Non-human animals do not figure to any degree in her analysis.
- 17 The idea that humans would come to wage a "just war" against non-human species became itself a kind of commonplace notion in Greek thought on human–non-human–animal relations. See, for example, the classic statement of Aristotle, *Politics* 1256b23–26.
- 18 See above pp. 34–35.

- 19 The text appears, in almost identical wording, in Plato, *Theaetetus* 152a and *Cratylus* 385e (only the “man is the measure of all things” portion); in Diogenes Laertius, *Lives of the Philosophers* IX. 51, in his life of Protagoras; and in Sextus Empiricus, *Outlines of Pyrrhonism* I. 216 and *Against the Professors* VII. 60.
- 20 Edward Schiappa, *Protagoras and Logos: A Study in Greek Philosophy and Rhetoric* (Columbia: University of South Carolina Press, 2003) xii.
- 21 Tom Regan, Foreword to Andrew Linzey and Paul Barry Clarke, eds., *Animal Rights: A Historical Anthology* (New York: Columbia University Press, 2004) x. Along similar lines, Alastair Harden, *Animals in the Classical World: Ethical Perspectives from Greek and Roman Texts* (Basingstoke: Palgrave Macmillan, 2013) 1, claims that Protagoras “becomes an unwitting spokesman and byword in the centuries-old struggle to place animals within the moral register of human beings.” In stark contrast to Regan, the bold anthropocentrism implied in the Protagorean aphorism is enthusiastically embraced by Reuben Abel, *Man Is the Measure: A Cordial Invitation to the Central Problems of Philosophy* (New York: Free Press, 1976), who states (xxi) that the full meaning and significance of Protagoras’ claim has been “perhaps never fully grasped, nor properly applied.” Abel seeks to prove that the world must be viewed through the lens of a “radical and irreducible anthropocentrism” (xxii) that acknowledges that reality is dictated solely by the “idiosyncrasies of human sensation, perception, and cognition” (xxii), and that accepts “the inevitable anthropocentrism of knowledge” (xxii).
- 22 Adolfo Levi, “Studies in Protagoras,” *Philosophy* 15 (1940) 150. Levi notes there that Plato, *Theaetetus* 152a, also understands man in this individual sense. This same claim is made in the case of the *Theaetetus* by Laszlo Versenyi, “Protagoras’ Man-Measure Fragment,” *AJPh* 83 (1962) 178.
- 23 Versenyi 182. On Xenophon’s employment of terms derived from the verb χρᾶμαι (*chraomai*), “use,” including χρῆμα (*chrēma*), “thing,” see above, p. 29 and note 9.
- 24 Versenyi 182.
- 25 Schiappa 121 calls attention to the ambiguity of interpretation involved in the use of the term ὅς. He maintains there that, while both interpretations have had their defenders, the idea of essence is anachronistic in the context of the aphorism since the concept of essence did not appear in Greek before Plato’s doctrine of Forms.
- 26 Dierauer, *Tier und Mensch im Denken der Antike* 277, remarks of these sections, “Dieses Pliniuskapitel bringt auf kurzem Raume die in der Antike wahrscheinlich umfassendste Aufzählung der Nachteile des Menschen gegenüber den Tieren.”
- 27 Mary Beagon, *The Elder Pliny on the Human Animal: Natural History Book 7*, translated and with an Introduction and Historical Commentary (Oxford: Clarendon Press, 2005) 43.
- 28 Beagon, *The Elder Pliny on the Human Animal* 49.
- 29 A useful introduction to the nature and contents of the *Natural History* is provided in Roger French, *Ancient Natural History: Histories of Nature* (London and New York: Routledge, 1994) 196–255. Also valuable for Pliny’s treatment of a number of branches of the natural sciences are the essays in Roger French and Frank Greenaway, eds., *Science in the Early Roman Empire: Pliny the Elder, His Sources and Influence* (Totowa, NJ: Barnes and Noble, 1986).
- 30 Essential to an appreciation of the philosophical underpinnings of the *Natural*

History is the seminal study of Mary Beagon, *Roman Nature: The Thought of Pliny the Younger* (Oxford: Clarendon Press, 1992).

31 Beagon, *The Elder Pliny on the Human Animal* 40.

32 Beagon, *Roman Nature* 32.

33 What may qualify as the bluntest expressions of this idea as a point of Stoic doctrine are found in the works of Cicero. In his treatise *De Finibus Bonorum et Malorum* (*On the Ends of Good and Evil*), Cicero observes that the prominent Stoic Chrysippus had himself declared that everything else was created for the use of man and the gods, while these two groups exist for their own society, so that man may use other animals for his own needs without committing injustice (*praeclare enim Chrysippus cetera nata esse hominum causa et deorum, eos autem communitatis et societatis suae, ut bestiis homines uti ad utilitatem suam possint sine iniuria, Fin. III. 67*). In his exposition of Stoic views on the created world in the second book of his treatise *De Natura Deorum* (*On the Nature of the Gods*), Cicero has the interlocutor Balbus, representative of the Stoic school of thought, remark that it is absurd to suppose that the system of the universe was formed for the sake of plants or dumb animals. We must rather believe that the gods created it for those beings who have reason, namely the gods and man (*quorum igitur causa quis dixerit effectum esse mundum? eorum scilicet animantium quae ratione utuntur; hi sunt di et homines, ND II. 133*). See Renehan *passim* and Lau *passim* for extended discussions of the idea that the world was created for humankind. See also [Chapter 4](#), pp. 49–54.

It is worth noting that a number of scholars have pointed out that Pliny's allegiance to a Stoic-inspired view of man's place in creation did not lead him to conclude that humans had the right to misuse the natural world and its denizens and components for their own selfish ends, a practice which seems to have been condoned in the passages from Cicero cited above, but rather that humans have some responsibility toward the natural world that favored them. Klaus Sallmann, "La Responsabilité de l'Homme face à la Nature," *Helmantica* 37 (1986) 257–262, for example, argues that Pliny believed that humans had come to abuse nature's elements in their desire to make poisons, thereby perverting the purity of nature. This idea that Pliny stresses humankind's baleful influence upon the natural world is prominent as well in Andrew Wallace-Hadrill, "Pliny the Elder and Man's Unnatural History," *Greece and Rome* 37 (1990), who notes (86–88) that Pliny complains that, while nature supplies all that humans need, their *luxuria*, their taste for extravagance and wastefulness, turns nature into the tool of their own destruction. Wallace-Hadrill (90–96) attributes Pliny's attack on *luxuria* to his deep-seated mistrust of Greek culture whose influence upon Rome, especially on Roman science, he views as corrupting and dangerous, an idea that was in itself a commonplace in Roman literature from the time of the elder Cato (234–146 bce). It is interesting to note, in any case, that Pliny seems to see man's primacy in a world created for his use as less a source of unalloyed pride than did some classical proponents of an anthropocentric worldview.

34 On emotions in Pliny, see Beagon, *Roman Nature* 70, "The really important human frailty for Pliny is that of the emotions. The mind is capable of moral choice: *ratio* risks being perverted by the emotions. Pliny's moral outlook is traditionally Stoic. The good things of life, wealth and power, are to be preferred but not sought after to an 'unreasonable' extent."

35 Sorabji, *Animal Minds* 92, calls Pliny's comment here on human emotions a reflection on man's "aggression toward conspecifics."

36 Dierauer, *Tier und Mensch im Denken der Antike* 273–279 includes Pliny among

writers who, in his view, set out to forge a “Kritik der Anthropozentrismus.” It might be more accurate to consider Pliny’s position as one of tempered acceptance of the anthropocentric stance since he certainly endorsed the position that humans occupy a privileged position in creation, even if they choose to abuse it. Mary Beagon is correct in her observation, *The Elder Pliny on the Human Animal* 40, “It is by presenting man in book 7 as the ultimate marvel that Pliny asserts both the anthropocentricity and the Romanocentricity of his outlook. . . .”

4 What Makes Humans Human?

The Reign of *Logos*

Man lives by reason as well, for he alone possesses reason.

(Aristotle, *Politics* 1332b5–6)

In his study of the rigorously anthropocentric character of Greek philosophical thought, cited several times in earlier chapters,¹ Robert Renehan isolates, as the capacity which most impressed the Greeks as unique to man alone of animals, the human's λόγος (*logos*), a term which Renehan proceeds to define, as he considers it to have been employed by the Greeks: “The specific difference which sets man apart from all other mortal animals in this definition is his λόγος, his capacity for intellectual activity.”² The idea that humans possess this unique capacity for intellectual activity became, under the weight of Greek influence upon subsequent thought, what Renehan terms “an accepted commonplace in Western culture.”³ This chapter attempts to assess the senses in which the term *logos* was applied by the Greeks to refer to human intellectual activity; to understand why the Greeks considered *logos* to be unique to human beings; to determine what intellectual faculties non-human animals were considered to have possessed in lieu of *logos*; and to determine why some Greek thinkers denied the proposition that man alone of animals possesses *logos*, and maintained that the possession of *logos* might not in fact be advantageous in all aspects of a creature's life. The chapter includes a reexamination of two modern survivals of the claim that man alone of animals is rational, viewed now beside the ancient case for humankind's unique rationality set forth in the chapter. We introduced at the outset of this study the contention of philosopher Mortimer Adler that humans differ radically in kind from other animals, and the case developed by bioethicist Wesley J. Smith for “human exceptionalism” that is predicated upon the assumption of human beings' unique rationality.⁴ Smith's goal is to prove that humans' rationality has significant ethical consequences: rationality, in his view, confers value. The question of the potential connection

between rationality and moral status, in ancient and modern thought, is taken up in detail in the next chapter.

Isolated and undeveloped expressions of the belief that humans differ from other animals in the possession of one or another intellectual capacity can be found, as we have noted in earlier chapters, in extant Greek literature as early as the time of Hesiod (*ca.* 700 bce). His claim that only man observes a code of justice in his dealings with his conspecifics, whereas other species, devoid of justice, consume each other (*Works and Days* 274–280), is often taken to be the first Greek assertion that human beings are in any respect superior to other animals.⁵ The pre-Socratic philosopher-physician Alcmaeon of Croton’s claim that only man possesses “understanding” (ξύνεσις, *xunesis*) while other species merely demonstrate “perception” (αἴσθησις, *aesthēsis*) is widely reckoned to be the earliest extant specific assertion of human beings’ *intellectual* superiority to other species found in a Greek source.⁶ Viewed against the counterclaims of other pre-Socratic thinkers who argued for some kinship between human beings and other animal species,⁷ Alcmaeon’s emphasis upon man’s superiority to other animals is all the more striking, although he seems to have placed some limitations on human intellect. In his brief biography of Alcmaeon, Diogenes Laertius states that Alcmaeon held that, “while the gods have sure knowledge of unseen and mortal things, human beings are capable only of inference from signs” (περὶ τῶν ἀφανέων, περὶ τῶν θνητῶν σαφῆνειαν μὲν θεοὶ ἔχοντι, ὡς δ’ ἀνθρώποις τεκμαίρεσθαι, *Lives of the Philosophers* VIII. 83 = DK24B1).

In the course of his analysis of the meaning of these two statements of Alcmaeon, Urs Dierauer observes that the belief that human beings are fundamentally distinguished from other species by their possession of reason and that other animals live without understanding or judgment, is one of the most influential theories of fifth-century Greek thought, and that much of post-classical psychology has been devoted to proving or disproving that thesis.⁸ Alcmaeon is the earliest extant Greek source who expressed that belief and, in so doing, Dierauer argues, he intended to suggest that without the capacity to extract information using their “understanding” (ξύνεσις, *xunesis*), humans would remain cultureless. Only humans are capable of cultural advancement. Moreover, in possessing the capacity “to draw conclusions from evidence” (τεκμαίρεσθαι, *tekmairesthai*), humans are the only animals capable of seeing beneath phenomena to understand the invisible.

While we might suspect that Dierauer has somewhat overinterpreted Alcmaeon’s two bald observations, his recognition of

the centrality of the idea that the human is uniquely rational in subsequent Greek and Western thought in general is important. Along similar lines, John Heath has stated that in the course of the fourth and third centuries bce, the Greeks settled upon the faculty of reason as the distinguishing characteristic of the human animal, and that that conclusion led the Greeks to undertake “the subsequent examination of the various characteristics associated with rationality, such as beliefs, perception, memory, intention, self-consciousness, etc.”⁹ However insightful Alcmaeon’s distinctions may seem to us, however, these and other observations on the intellectual capacities of non-human animals that we encounter in pre-Socratic thinkers remained random utterances largely unsupported by eye-witness investigation. “The subsequent examination of the various characteristics associated with rationality” to which Heath refers is associated in particular with Aristotle, whose biological researches on non-human species provided a scientific basis for his own and later Greek claims of human intellectual superiority and uniqueness. Aristotle’s work in taxonomy, which sought to establish the place of the human in the hierarchy of animal creation, allowed him to view humans not only as one species of animal among many but at the same time as an animal set apart, distinguished by their intellectual faculties, including the “beliefs, perception, memory, intention, self-consciousness, etc.,” that Heath enumerates.

Aristotle’s work as a zoological investigator could have benefitted little from the views on non-human species expressed by his teacher Plato, who often spoke of animals in metaphorical terms, equating “animality” with grossness, baseness and qualities antithetical to the rational, and whose statements on animal intellect seem inconsistent. Sorabji¹⁰ has noted Plato’s wavering opinion on whether non-humans possess a rational faculty. At *Laws* 961d, for example, Plato allows that animals possess “mind” (νοῦς, *nous*), which he declares there to be the salvation of every creature. To a great extent, however, non-human animals in Plato serve to illustrate philosophical points, with each species chosen to exemplify a particular virtue or vice that is to be emulated or avoided by the philosopher.¹¹ Plato does not seem to have had much interest in non-human animals as biological entities.

In contrast to the noticeable lack of interest in zoological investigation on the part of Plato, Aristotle, in his treatise *Parts of Animals*, affords us a fascinating glimpse into his view of the value to be found in the study of the denizens of the animal world. Whereas we can gain little knowledge of things that are eternal and divine, he argues (*Parts of Animals* 644b25–26), because we do not have sensory organs adequate to understanding such lofty matters, we can more

easily comprehend those beings that are mortal, namely plants and animals, since we live among them. While not all animals that share our world are beautiful to our senses, he continues, there is no creature, however mean or lowly, that does not merit the attention of the individual of philosophical temperament. We should therefore not scorn to contemplate even the “less worthy animals” (τῶν ἀτιμωτέρων ζῴων, 645a16–17), for they too, like all living things, have in them “something of the marvelous” (τι θαυμαστόν, 645a19). He ends his exhortation to the study of the animal world with the injunction that we should not hesitate to study every sort of animal since in no one of them is beauty totally lacking.

In the opening paragraph of the second book of *Parts of Animals* (646a10–12), Aristotle explains that that treatise is intended to investigate the “causes” (αἰτίαι, *aitiai*) that make each animal be as he had described it in his treatise *History of Animals*. *Parts of Animals* is thus more theoretical in orientation than the fact-filled *History of Animals*, distinguishing as it does between such concepts as the “material causes” and “formal causes” of species, and amongst the “potentialities” (δυνάμεις, *dunameis*) that species exhibit. Despite the rather abstract nature of the work, *Parts of Animals* offers clear evidence of its author’s use of dissection as a tool in the classification of animals. The treatise is replete with typically Aristotelian distinctions between internal structures that could be discernible only through dissection. Indeed, Aristotle refers (*Parts of Animals* 650a32) to a work of his, now lost, apparently entitled *On Dissections* (ἐκ τῶν ἀνατομῶν). While we might not accept entirely the distinctions that Aristotle draws in his zoological treatises, his analysis of species based on examination and classification of internal parts obtained by autopsy give his assertions that man alone of animals was endowed with particular intellectual and physiological advantages the authority that the random statements of pre-Socratic thinkers, or even Plato himself, unsupported by eye-witness evidence, cannot claim.¹² Aristotle’s answer to the question of what sort of animal the human being is, as distinct from other animal species, may well be the most important and influential pronouncement in the history of science and Western philosophy: Aristotle declared that “man alone of animals” possesses reason, an assertion that receives its classic exposition in the statement from the *Politics* that forms the epigraph to our chapter, framed there with the Aristotelian dogmatism that helped to guarantee his influence upon subsequent thought. While other animals, he declares in this passage, live “primarily by nature” (μάλιστα τῇ φύσει, *Politics* 1332b4), in contrast to this, “man lives by reason as well, for he alone possesses reason” (ἄνθρωπος δὲ καὶ λόγῳ ,

Aristotle devoted much attention, in both his biological and his ethical treatises, to clarifying the senses in which this assertion is to be understood, as we shall see subsequently, but it is useful at this point to call attention to the observation of philosopher Richard Sorabji on Aristotle's motivation in declaring man alone of animals rational, "Aristotle, I believe, was driven almost entirely by scientific interest in reaching his decision that animals lack reason."¹³ It remained for the Stoics and the Epicureans to moralize Aristotle's biological observations and to deny moral value to non-human animals on the basis of this alleged irrationality, a philosophical program that resonated with early Christian apologists and, through Christianity, became enshrined in western philosophy. Aristotle, in contrast to the Stoics, did not intend in his observations on non-human species to suggest that they are inferior in *value* to human beings. We should note, at the same time, that Aristotle's categorical denial here of rationality to non-human animals is found in a political treatise and not in one of his zoological treatises where the philosopher seems more willing to attribute a range of mental capacities to non-human animals that he denies to them in his political and ethical works, a phenomenon that has caused some scholars to detect in Aristotle an inconsistency that he never fully reconciled.¹⁴ In the passage from the *Politics*, Aristotle allows that non-human animals live to a large extent "by nature" (φύσει), by which he may mean what is now designated by the term "instinct," and he maintains as well that some smaller animals live also by their "habits" (μικρὰ δ' ἔνια καὶ τοῖς ἔθεισιν, *Politics* 1332b4–5).¹⁵ Again in the *Politics*, Aristotle argues that, while other animal species possess a voice (φωνή, *phōnē*), "man alone of animals" possesses speech (λόγον δὲ μόνον ἄνθρωπος ἔχει τῶν ζώων, *Politics* 1253a10–11), in consequence of which only humans can articulate what is just or unjust and useful or harmful. This capacity, he maintains, is "in comparison to other animals, unique to humans" (πρὸς τὰλλα ζῶα τοῖς ἀνθρώποις ἴδιον, *Politics* 1253a17–18). Along similar lines, Aristotle combines intellectual and emotional categories when he states, in his *Nicomachean Ethics*, that non-human animals are incapable of happiness (εὐδαιμονία, *eudaimonia*) because "they do not at all share in contemplation" (οὐδαμῇ κοινωνεῖ θεωρίας, *Nicomachean Ethics* 1178a28), and happiness is a sort of contemplation (1178a32–33), which is itself an activity of the intellect. It is not difficult to detect examples of the sorts of inconsistencies on the intellectual capacities of non-humans of which scholars have complained even within the context of the ethical treatises themselves. While denying non-humans the capacity for happiness in the *Nicomachean Ethics*

because of the intellectual component that happiness entails, Aristotle had, earlier in that treatise, allowed that “some lower animals” may be said to be “wise in a practical sense” (φρόνιμα, *phronima*, 1141a27) because they possess a “capacity for forethought concerning their own lives” (περὶ τὸν αὐτῶν βίον δύναμιν προνοήτικον, 1141a28–29). It may be this capacity for “practical wisdom” (φρόνησις, *phronēsis*) that Aristotle claims allows a lion to take pleasure in the sound of an ox that the lion will soon devour, a pleasure that arises not from enjoyment of the sound but from anticipation of the meal (*Nicomachean Ethics* 1118a20–27).¹⁶ Although the lion does not look forward to the meal because of any ability to conceive abstractly what an ox is, since non-humans “are devoid of universal concepts” (οὐκ ἔχει τῶν καθόλου ὑπόληψιν, 1147b11), the animal at least has some memory (μνήμη, *mnēmē*, 1147b12) of a lion that it had once encountered, which triggers the reaction.

Aristotle’s denial of a rational faculty to non-humans appears in other of his ethical treatises as well. In *On the Soul*, he states (433a13–14) that animal species other than human beings possess neither thought (νόησις, *noēsis*) nor reckoning (λογισμός, *logismos*), but only a kind of perception (φαντασία, *phantasia*) regarding the appearance of things, a technical term that Sorabji notes may also be translated as “imagination” or as “impression.”¹⁷ This mental capacity allows non-human animals to perceive that things have a particular appearance, but not to speculate on the nature of the things themselves. In an earlier discussion of “imagination” in *On the Soul*, Aristotle had stated (428a22) that, while many animals do possess this faculty, no non-human animal has “belief” (πίστις, *pistis*), a faculty which allows a being to believe in a thing, that is, to exhibit δόξα (*doxa*), “opinion” (422a19), which causes a creature to be convinced of a thing. Non-human animals cannot have opinions because these arise from consideration, and no non-human animal possesses reason (428a25). Also in this work, Aristotle distinguishes the types of souls (ψυχαί, *psūchai*) that are possessed by various animal species as well as by plants, and he argues that not all animals demonstrate the same psychic capacities. The souls of plants have only the “nutritive faculty” (θρεπτικόν, *threptikon*, 414b1), which allows them to acquire and utilize nutrients, while other creatures have as well a “perceptive faculty” (αἰσθητικόν, *aisthētikon*, 414b2), which accords them consciousness. Those creatures that possess the perceptive faculty have as well “yearning” (ὄρεξις, *orexis*, 414b2), “inclination” (ἐπιθυμία, *epithūmia*, 414b2), “desire” (θυμός, *thūmos*, 414b2) and “will” (βούλησις, *boulēsis*, 414b3). Human beings, however, and beings similar to and superior to human beings, possess as well “power of

thought and mind” (τὸ διανοητικόν τε καὶ νοῦς, *to dianoētikon te kai nous*, 414b19). It is noteworthy that in this last assertion, Aristotle associates human beings more closely with divine beings than with other animal species. Still, even in his claim that human beings are closer to the divine than to the animal, Aristotle stops short of maintaining that humans are morally superior to other species and therefore matter more than do other species simply because of their superior mental endowments, a fact that serves to bear out Sorabji’s assertion that Aristotle’s point of view on non-human species is that of a man of science.¹⁸

The text of Aristotle is not, however, totally devoid of expressions of belief in some sort of human superiority over non-human animals, even if that superiority does not involve considerations of moral excellence. In a famous passage in his *Politics*, Aristotle argues (1256b15–23) that since nature has so ordered creation that plants exist for the sake of animals, and some other animals exist for the sake of humans, we must conclude, if nature does nothing “without purpose or in vain” (μήτε ἀτελές . . . μήτε μάτην, 1256b21), that nature has “necessarily created all animals for man’s use” (ἀναγκαῖον τῶν ἀνθρώπων ἔνεκεν αὐτὰ πάντα πεποιηκέναι τὴν φύσιν, 1256b22–23). Aristotle is speaking here as a political scientist, not as a natural philosopher, as he offers some preliminary observations on the nature of societies and on the relative place of various components within a society. Just as one person is by nature a ruler, he contends, so is another “by nature a slave” (φύσει δοῦλος, 1254b22). Throughout nature, he maintains, there are those who rule and those who are ruled, and non-human animals, like slaves, fall into the class of those who are ruled. The class of rulers has the right to conduct warfare against both wild beasts and those classes of humans who do not acknowledge that they are “born to be ruled” (πεφυκότες ἄρχεσθαι, 1256b26), for “this warfare is by its nature just” (φύσει δίκαιον τοῦτον ὄντα τὸν πόλεμον, 1256b26–27). In this passage, Aristotle does indeed call some beings “better by nature” (βελτίω τὴν φύσιν, 1254b12), as tame animals are better than wild ones and males are than females, but this superiority concerns specifically their capacity to exercise authority in statecraft. No notion of moral superiority enters into the discussion, but the anthropocentric hierarchy implied in Aristotle’s presentation would be put to use by the Stoics who interpreted his political biases to mean that humans have no obligations toward non-human animals.¹⁹

The strictures that Aristotle places on the intellectual capacities of non-human animals in his political and ethical works which advance his thesis that man alone of animals possesses reason are tempered

and modified in his zoological works which frequently describe intellectual faculties in animalkind as being rather a question of “more or less” than of “all or nothing,” in comparison with those of humans. In his zoology, the rational faculty in animals is presented as a continuum as Aristotle the naturalist explicates what other capacities non-human animals possess that enable them to navigate their lives and their environments successfully if they are devoid of reason but are endowed with capacities that the philosopher maintains exhibit such quantitative differentiations. A clear exposition of this idea of quantitative differentiation is found in the opening paragraphs of the eighth book of *History of Animals*, a section of that treatise in which the concession of intellectual capacities to non-human animals is so much more generous than is the case in the non-zoological treatises of Aristotle that some scholars have doubted its attribution to Aristotle and have suggested that the book is the work of Aristotle’s pupil Theophrastus, who is known to have considered the intellectual faculties of non-human animals to be closer to those of humans than did his teacher.²⁰ The author maintains that “even in most of the other animals there are traces of the characteristics of the soul” (ἐν τοῖς πλείστοις καὶ τῶν ἄλλων ζώων ἵχνη περὶ τὴν ψυχὴν τρόπων, *History of Animals* 588a19–21), which include “resemblances of intelligent understanding” (τῆς περὶ τὴν διάνοιαν συνέσεως . . . ὁμοιότητες, 588a23–24). Hence, some traits in non-human species stand in a “more or less” relation with respect to the human (τὰ μὲν γὰρ τῷ μᾶλλον καὶ ἥττον διαφέρει πρὸς τὸν ἄνθρωπον, 588a25–26), with some traits more developed in the human than in other animals. Other traits differ “by analogy” (τῷ ἀνάλογον, 588a28): human beings possess “skill” (τέχνη), “wisdom” (σοφία), and “intelligence” (σύνεσις), while other animals have “some other capacity like these” (ἑτέρα τοιαύτη φυσικὴ δύναμις, 588a30–31). The idea of analogous intellectual capacities across species is observable also in the assertion that many animals display “imitations of human life” (μιμνήτατα τῆς ἀνθρωπίνης ζωῆς, 612b19–20). We find as well uses of terms like “as if” to describe animal behaviors that seem to suggest intellectual capacities observable in human beings, as when dolphins are said to hold their breath when they plunge deep into the water, “as if calculating” (ὥσπερ ἀναλογισάμενοι, 631a28) their need for air.

The eighth book of *History of Animals* sets forth a principle representing a view of interspecies relationships that appears to challenge the “man alone of animals” concept. Immediately following the observations on analogical capacities among animalkind, the claim is made that nature advances from “inanimate things” (ἀψύχων, *apsūchōn*, 588b4) to animate beings in such small steps that we cannot

take note of the boundaries between them because of the “continuity” (συνεχεία, *sunecheiai*, 588b5) that conceals this gradation. This same view is presented in very similar language at *Parts of Animals* 681a12–15, where Aristotle states that nature moves in continuous gradations from lifeless things to animals, with one seeming to differ only slightly from the other. Aristotle’s concept of an almost undetectable advance in complexity from the plant world through the animal world has been seen as a contribution to the concept of a *scala naturae*, or Great Chain of Being, as the idea of a continuous but gradual increase in complexity of creation without interruption came to be known,²¹ and has even been taken to be an elementary foreshadowing of a concept of biological evolution. The apparent inconsistency between Aristotle’s denial of reason to non-human species in the non-zoological treatises and his willingness here to posit some degree of continuity in animal intellect might be considered to be evidence of the unresolved conflict between his views on animal intellect in the non-zoological and the zoological works. Other species are said to approach human beings in gradual steps with faculties that “resemble” human reason, but we should note that he does not assert that non-humans pass over into the rational. As Sorabji notes, “Even Aristotle’s gradualism is carefully qualified so that it allows for a sharp intellectual distinction between animal and man.”²² There is no question of evolution because non-human animals never become rational. In Aristotle, species are fixed, however much lower animals may approximate to human beings.²³ “Man alone of animals” is rational, even if other species have analogous intellectual capacities.

Aristotle comes remarkably close, however, to according reason to non-human animals in one of his discussions of analogous intellectual capacities in animals, in which he explains that they are aided in managing their lives through the use of what he terms “sensation” (αἴσθησις, *aesthēsis*), which motivates in them behaviors that would be guided by reason in human beings. In his treatise *Movement of Animals*, Aristotle asserts that we human beings at times “act without calculation” (μὴ λογισάμενοι πράττομεν, *mē logisamenoi prattomen*, 701a28), performing acts quickly and without reflecting upon them. In such actions, “desire” (ἐπιθυμία, *epithūmia*, 701a32) takes the place of investigation or thought about them. Thus, when a person sees water and his appetite tells him that he must drink, he does so without calculation. The person has been prompted to action by “perception, or imagination, or thought” (αἴσθησις, φαντασία, νοῦς, *aesthēsis, phantasia, nous*, 701a33). This, Aristotle contends, is how non-humans act as well, namely, through desire prompted by sensation, imagination or thought (701a35–36). When he accords

them “thought” (*nous*), Aristotle seems to come close to allowing reason to non-human animals, but he nevertheless still withholds reason since he had earlier maintained that humans are able to perform this action “without calculation” (μὴ λογισάμενοι), a mental capacity involving λόγος (*logos*), that is, reason. His point here is precisely that non-humans perform this action similarly, without calculation. Still, the passage illustrates the fact that Aristotle is more generous in his attribution of developed intellectual capacities to non-humans in his zoological works than elsewhere.

When we pass from the vision of animalkind and of the relationship between human and non-human animals set forth in Aristotle’s zoology, and focus on the Stoic vision of human and non-human animals in the scheme of creation, we enter a world at once familiar in its appropriation of terms and ideas encountered in Aristotle, and at the same time foreign, if not indeed somewhat mystical, in its picture of a scheme of creation in which reason, the divine and the animal are intertwined in a cosmic theology so anthropocentric in its orientation that non-human animals become unequivocally and irrevocably subservient to both the divine and the human elements of creation. In Stoic cosmology, from the inception of the school, “reason” (λόγος, *logos*) was seen as pervading the cosmos, giving it at once form and direction. In his life of Zeno (335–263 bce), founder of Stoicism, Diogenes Laertius reports that the great Stoic logician Chrysippus (ca. 280–207 bce) and other Stoics taught that the cosmos is “a living thing, rational, besouled and intelligent” (ζῶον ὁ κόσμος καὶ λογικὸν καὶ ἔμψυχον καὶ νοερόν, *Lives of the Philosophers* VII. 142 = *SVF* II. 633).²⁴ Chrysippus further taught that the Stoics viewed the cosmos as “directed in accord with reason and providence” (τὸν κόσμον διοικεῖσθαι κατὰ νοῦν καὶ πρόνοιαν, VII. 138 = *SVF* II. 634).

The faculty of reason, which pervades the universe, is shared by human beings and the gods, as Balbus, the interlocutor in Cicero’s dialogue *De Natura Deorum* (*On the Nature of the Gods*) who presents the Stoic vision of cosmology in that work, explains. If there is a thing in the world that the human’s “mind, reason, and human power” (*mens, ratio, potestas humana*, *On the Nature of the Gods* II. 16) cannot produce, it must be the work of some superior entity, namely a god. If gods did not exist, what, Balbus asks, could be superior to man, for “man alone possesses reason” (*in eo enim solo est ratio*, II. 16), and nothing is superior to reason. Balbus elaborates this view at *On the Nature of the Gods* II. 79, asserting there that the gods and human beings are united in possessing the faculty of reason (*sequitur ut eadem sit in iis quae humano in genere ratio*). The Roman Stoic Seneca (ca. 4 bce–65 ce) reiterates this idea, placing humankind in the hierarchy of

creation from non-human animals through the gods, in his *Epistulae Morales* (*Moral Letters*). In each creature, that faculty should be best for which the creature was born. In a dog, that faculty is sharpness of smell, which enables the animal to track its quarry. What is this faculty in humankind? It is reason, in which humans are distinguished from animals and trails only the gods (*in homine optimum quid est? ratio; hac antecedit animalia, deos sequitur*, *Moral Letters* LXXVI. 9). Man has other excellences, Seneca continues, including speed, bodily strength and beauty, all of which he shares with other animals. Seneca is not attempting here to enumerate those qualities that are superior in man, he informs the reader, but rather to specify that which is unique to man (*non quaero quid in se maximum habeat, sed quid suum*, LXXVI. 9). What belongs to man alone? Reason (*quid in homine proprium? ratio*, *Moral Letters* LXXVI. 10). Reason makes man happy and brings him to perfection. Gary Steiner is accurate in observing that, by promulgating such exclusionist views, the Stoics succeeded in “elevating the dividing line between human beings and animals to the status of a cosmic principle.”²⁵

The Stoic conviction that “man alone of animals” is rational had enormous consequences for their views on human–non-human-animal relations. In subsequent discussions in the second book of Cicero’s *On the Nature of the Gods*, the Stoic spokesman Balbus asks for whom the vast system of creation would have been devised if not for the rational inhabitants of that created world (II. 133). It is ridiculous, he argues, to suppose that the gods took the trouble to make the world for the sake of *all* animals, even the irrational ones among them. It was devised rather “for the sake of those beings who employ reason, namely the gods and men” (*eorum scilicet animantium quae ratione utuntur; hi sunt di et homines*, II. 133). These beings must be supposed to excel all other creatures, for reason is that which excels all other attributes (*ratio est enim quae praestat omnibus*, II. 133). The logical consequence of this line of argument soon becomes clear in Balbus’ exposition: all created things in the world were fashioned for the use of humankind (*omnia quae sint in hoc mundo quibus utantur homines hominum causa facta esse et parata*, II. 154). Balbus’ emphasis on the “usefulness” of the created world for the needs of humankind recalls Socrates’ observation in Xenophon’s *Memorabilia* IV. 3. 10, that non-human creation lives for the needs of man.²⁶ Just as Xenophon had employed forms of the Greek verb *χράομαι* (*chraomai*), “use, make use of,” to delineate the active participation of humans in the created world, and indeed their manipulation of it, so too here does Cicero employ the comparable Latin verb *utor*, “use, make use of,” to indicate this active engagement with creation. Non-human animals are said by

Balbus to “enjoy” the created world (*bestiae fruuntur*, II. 157), while humans manipulate it. Only rational beings can refashion nature to fit their needs. Aristotle had expressed such a view in his claim that nature “necessarily creates all animals for man’s use” (*Politics* 1256b22–23).²⁷ While the teleological thrust of such pronouncements seems rather similar, Aristotle stopped short of claiming that non-human animals, because of their supposed irrationality, stand outside the sphere of human moral concern, that is, that their intellectual inferiority makes them inferior overall, having value only insofar as they serve human needs.

In contrast to Aristotle, the Stoics were blunt in their assertions that the *only* purpose that the lives of non-human animals have is to be of use to man. Sheep, Balbus maintains (*On the Nature of the Gods* II. 158), have no other use than to provide woollen clothing to humans, while the very anatomy of oxen, with their broad shoulders and strong backs, proves that they are made to carry man’s burdens. Pigs are born solely to provide food for human beings. Indeed, Balbus informs us, the Stoic Chrysippus went so far as to claim that pigs have souls that function like salt, as a preservative, to keep the animals from rotting until humans can eat them (II. 160). Epictetus, the slave turned Stoic philosopher (first or second century ce), gives a piquant version of this conception of the real value of non-human species in the course of his demonstration of the marvelous workings of divine providence in the universe, when he asserts that non-human animals, by the sensible dispensation of the gods, are “born not for themselves, but for their serviceability” (οὐκ αὐτῶν ἔνεκα, ἀλλὰ πρὸς ὑπηρεσίαν γεγονότα, *Discourses* I. 16. 2). It would be difficult to isolate a more contemptuous vision of “otherness” between the species than that which Balbus and Epictetus ascribe here to the Stoics, and we seem to be a world away from Aristotle’s observation that even the lowliest animals are worth man’s study and admiration (*Parts of Animals* 645a23–24).²⁸

Stoic anthropocentrism, with its denial of rationality to non-humans, proved appealing to the early Church, and the conviction that man owes nothing to other species became virtually an article of faith in the new religion. The classic exposition of a Stoic-inspired vision of non-humans as the “Other” in a Christian text is the discussion by Augustine (354–430 ce) of the meaning of the biblical injunction against killing which, he explains (*De Civitate Dei* [*On the City of God*] I. 20), is certainly not meant to apply to plants or to non-humans animals, but is strictly an interpersonal obligation, for non-human animals are devoid of reason and therefore “are not akin to us at all in rationality” (*nulla nobis ratione sociantur*). After all, “by the

very just arrangement of the creator, their life and death are subject to our needs” (*iustissima ordinatione creatoris et vita et mors eorum nostris usibus subditur*, *On the City of God* I. 20). The triumph of Christianity, with its Stoic-tinged theology, helped to guarantee the longevity of anti-animal prejudice in western thought by enshrining the belief that “man alone of animals” is rational and therefore has divine sanction to manipulate the remainder of creation.²⁹

The Stoic case for the intellectual inferiority of non-human animals was grounded in the school’s concept of the animal soul. Like Aristotle, the Stoics conceived the soul, in humans and non-humans alike, to be composed of a number of components.³⁰ While the Stoics did not deny a soul to non-human animals, they maintained that non-human souls lacked the capacity to attain to the perfection of the human soul, that is, to achieve rationality. The commentator Aetius (first century ce?) reports (*Placita* IV. 21 = *SVF* II. 827) that the Stoics maintained that the soul, in all animals, is made up of eight parts: the five senses, the capacity for utterance, the capacity for reproduction, and an eighth part called the ἡγεμονικόν (*hēgemonikon*), a sort of guiding or governing principle.³¹ While the human soul does not differ markedly from the souls of non-human species at birth, the *hēgemonikon* in human beings in time attains to rationality, while that of non-human species does not, instead serving only to guide the animal to act without empowering it to make deliberate choices. As Sorabji describes the *hēgemonikon* of animals, “Instead of consisting of reason, it consists merely of their life, sensation and impulse.”³² While non-human animals remain merely self-interested in their behaviors, Diogenes Laertius reports in his life of Zeno (VII. 86), human beings, in contrast, once their *hēgemonikon* attains rationality, become more perfect beings and undertake the sort of life that is natural to humans, that is, the life lived in accordance with reason. Non-human animals, in contrast, being saddled with an irrational governing principle, are, in the view of the Stoics, limited in their activities to such actions as approaching food sources that are appropriate to them and shunning things that are antithetical to their welfare (VII. 85).

Perhaps the most devastating practical consequence of the absence of “reason” (*logos*) in non-human animals, in Stoic doctrine, was their inability to develop the capacity for meaningful “speech” (*logos*, in the other sense in which the word was employed in Greek to refer to aspects of intellectual activity). We recall that Aristotle had remarked (*Politics* 1253a10–11) that even non-human species have a “voice” (φωνή, *phōnē*), but “man alone of animals possesses speech” (λόγον δὲ μόνον ἄνθρωπος ἔχει τῶν ζώων), with which man uniquely gives voice to his conception of justice and goodness.³³ While Aristotle only hints

here at the ethical ramifications of the lack of a capacity for meaningful speech for non-human animals, the Stoics made the idea of the absence of speech in non-humans a cornerstone of their ethical system. In his study of the weight which the Greeks placed upon the capacity to manipulate speech in their valuation of the “Other,” be that individual a foreigner or a member of their own population, John Heath has powerfully characterized the Greek preoccupation with speech as “the grand-daddy dichotomy of them all, the *pater familias* of polarity. . . .”³⁴ While Heath is not speaking here of the Stoics, his description characterizes their position exactly: beings that possess articulate language, in Stoic doctrine, *matter* more than those that do not. Heath argues that this capacity for “speech” (*logos*) is the criterion that, for the Greeks, constituted the quintessential distinction between humans and non-human animals, and that only subsequently did *logos* in its sense of “reason” come to be viewed as unique to human beings.³⁵ Heath is referring in particular to pre-Aristotelian applications of the word *logos*, including the Sophistic emphasis on the primacy of language,³⁶ but in Stoic usage, the two senses of the term are blended to create a vision of animal inferiority that Aristotle did not advance. The twofold sense of *logos* and the devastating consequences of the absence of both *logoi* to non-human animals is set forth bluntly in Cicero’s exposition of Stoic ethics in his treatise *De Officiis* (*On Duties*), where it is stated that, while we may admit that other animal species possess courage, we do not ascribe to them justice, equity or goodness, “for they are without reason and speech” (*sunt enim rationis et orationis expertes*, *On Duties* II. 50).

In Stoic doctrine, reason (*logos*), as it manifests itself in speech, is bipartite, divided into what they distinguished as its internalized and externalized forms. “Internal reason” (λόγος ἐνδιάθετος, *logos endiathetos*) controls and gives meaningful form to “spoken reason” (λόγος προφορικός, *logos prophorikos*), that is, vocalizations, or speech. The capacity for utterance itself arises in the *hēgemonikon* as one of its eight components in the souls of all animals, but since this “governing principle” remains forever irrational in the case of non-human animals, their vocalizations are devoid of meaning since they do not issue from reason. The Skeptic philosopher-physician Sextus Empiricus (second century ce?) notes (*Adversus Mathēmatikōs* [*Against the Professors*] VIII. 275 = SVF II. 135) that even the Stoics admitted that humans do not differ from non-human animals in the capacity for vocalized speech, since they acknowledged that crows, parrots and jays make “articulate sounds” (ἐνάρθρους φωνάς, *enarthrous phōnās*), but they denied non-human animals the capacity for “internal reason,” which, according to Sextus, makes them, in Stoic teaching, incapable

of making inferences or of understanding propositions of the “if . . . then” sort. This line of thought is the inspiration for Cicero’s claim (*On Duties* II. 50) that humans cannot ascribe a moral dimension to non-human species because they lack *reason and speech*.³⁷

One fascinating treatment of Stoic views on the connection between reason and speech in non-humans and of the imperfection of the animal soul, imbued with the religious fervor noticeable in Augustine, is often overlooked in studies on classical views of animal mentality, no doubt due to the peculiar state of its preservation. The dialogue known under the title *De Animalibus* (*On Animals*) by the Jewish philosopher Philo of Alexandria (ca. 25 bce–ca. 50 ce) survives, with the exception of its original Greek title and a few fragments, solely in an Armenian translation.³⁸ Originally entitled *Alexander, or Whether Dumb Animals Are Rational*, the work portrays Philo showing to his grandnephew Lysimachus the text of a lecture that Philo’s nephew Alexander had delivered defending the thesis that non-human animals are rational. Lysimachus thereupon reads the lecture aloud, following which Philo attempts (*On Animals* 77–100) to refute the thesis of rationality in animals. In the course of the dialogue, Philo alludes to a number of key Stoic doctrines relating to the mental capacities of non-human animals. When Alexander observes (12), that “there are two kinds of reason: the one located in the mind is like a spring that issues from the sovereign part of the soul, whereas uttered reason is like a stream . . . which courses over the lips,”³⁹ he clearly alludes to the Stoic concept of the interrelatedness between *logos endiathetos* and *logos prophorikos*, and he touches as well upon the doctrine of the *hēgemonikon* in his reference to the “sovereign part of the soul.” While he is willing in this section to concede that both types of reason are imperfect in animals, he insists that they are nevertheless present in all animals. Already at the outset of his refutation (77), Philo had warned that such argumentation was a sin against the divine mind. When he later denies that non-human animals have either “mental reasoning” or “uttered reasoning” (98), he too brings up the Stoic doctrine of *logos endiathetos* and *logos prophorikos*. Animal utterances, Philo maintains (96), are like the notes of a trumpet or a flute in having sound but being devoid of meaning. His explanation (96) of how the faculty of reason develops in time in the human being, even if he is at birth irrational, while other animals never attain reason, is a close reflection of the Stoic view of the development of reason in the soul of human beings. Philo concludes this part of his refutation by declaring (96), “The souls of other creatures do not have the fount of reason. They are destitute of the reasoning faculty.”⁴⁰ That is, “man alone of animals” is rational. Philo nowhere in the dialogue

specifically alludes to his Jewish faith and to any part which his faith may have played in the development of his anthropocentric take on the mental capacities of non-human species, but the heavy Stoic coloring of his argument makes his dialogue a valuable testament on Stoic views on the connection between reason and speech.⁴¹

In the final analysis, the Stoic denial of reason to non-human animals left them functioning like automata. If man alone of animals is rational, non-human behavior had to be accounted for in some other fashion. The absence of a rational *hēgemonikon* left non-humans under the control of what the Stoics designated as “impulse” (ὁρμή, *hormē*), which prompts a creature to act in a self-interested manner, as when the animal is prompted to move toward a potential food supply, or to avoid enemies, or to employ its body parts correctly. In his life of Zeno, Diogenes Laertius explains that already Chrysippus had taught that “the first impulse of an animal is toward self-preservation” (τὴν πρώτην ὁρμήν φασι τὸ ζῶον ἵσχειν ἐπὶ τὸ τηρεῖν ἑαυτό, *Lives of the Philosophers* VII. 85). Seneca elucidates the Stoic principle at issue here, observing that no animal needs to be taught to preserve itself, because “impulses toward useful things and repulsion from the opposites are natural, without any thought” (*naturales ad utilia impetus, naturales a contrariis aspernationes sunt, sine ulla cogitatione, Moral Letters* CXXI. 21).⁴² This “impulse” would be viewed, in modern parlance, as instinct, and is contrasted in Stoic teaching with what the Stoics termed “desire” (ὀρεξις, *orexis*) which, as the Christian philosopher Clement of Alexandria (second century ce) explains (*Stromateis* IV. 18 = *SVF* III. 442), was called by the Stoics a “rational impulse” (λογικὴν κίνησιν, *logikēn kinēsin*). Without rational *orexis*, non-human animals face numerous intellectual challenges, being incapable, for example, of deliberate choice (βούλησις, *boulēsis*) which, Diogenes notes, was viewed by the Stoics as a “reasonable desire” (εὐλογον ὀρεξιν, *Lives of the Philosophers* VII. 116). In his discussion of Stoic theories on disorders of the soul, Cicero defines *boulēsis* as equivalent to the Latin *voluntas*, “will, wish,” and observes that the Stoics believe that “this will exists in the wise man alone” (*eam illi putant in solo esse sapiente, Tusculanae Disputationes* [*Tusculan Disputations*] IV. 12). Urs Deirauer is correct in characterizing the Stoic denial of reason to non-humans, with the numerous ramifications that that entailed in their doctrine, as establishing a “vast chasm” between human and non-human animals, far beyond what Aristotle’s denial of reason entailed.⁴³

The bleak Stoic estimation of the place of non-humans in the scheme of creation was not materially improved in the doctrine of the Epicureans, the chief rivals of the Stoics. Their founder Epicurus (341–

270 bce), a contemporary of Zeno, showed on the whole little interest in non-human animals, but he did agree with the Stoic position on the importance of language in the hierarchy of animal creation. In his *Kuriai Doxai* (*Sovereign Maxims*), a collection of pithy sayings summing up important doctrines, preserved in the tenth book of Diogenes Laertius, Epicurus, in setting forth his theory of justice, argues (*Kuriai Doxai* XXXI) that justice arises from expediency and is an expression of men's resolution to refrain from mutual harm. In the following maxim, Epicurus explains further that, since non-human animals cannot form "covenants" (συνθήκας, *sunthēkās*) to guarantee this mutual restraint because they are without meaningful speech, non-human animals fall outside the scope of human justice or injustice. This justice, he continues (XXXIII), does not exist as an entity in itself, but comes into being when an agreement arises between human beings not to harm one another, an arrangement impossible for those devoid of speech.⁴⁴

The intellectual disjuncture between human beings and non-human animals in Greek thought inaugurated by the assertion of Alcmaeon of Croton that humans understand while non-humans merely perceive,⁴⁵ had led, through contributions of the Sophists but most especially of the Stoics, to a situation in Greek philosophical thought in which non-human species came to be viewed as inferior and alien, that is, as the "Other," because of their supposed irrationality. Although Aristotle, in his role both as zoologist and as political and moral philosopher, had advanced the position that only man is rational, the Stoics made this principle the centerpiece of their ethical system. It is important to note here that, unlike Aristotle, the Stoics had no abiding interest in natural science, except insofar as science could bolster Stoic teaching on the relation of man to the divine and thereby direct man to god.⁴⁶ Stoic cosmology was not complemented by a Stoic zoology. The subtleties of Aristotle's biological gradualism, with its appreciation for all animals on nature's ladder, are absent from the Stoic view of the natural order.⁴⁷ The practical effect of this limitation was to allow for a sharp distinction between humans and *all* non-human species alike, a distinction that arose from the fundamental Stoic conviction that man alone of animals is rational. In this environment, non-humans are not envisioned as approaching to the position of human beings in the scheme of animal creation, and all non-human species are seen as equally wanting, a view sharply in contrast to the thrust of Aristotelian gradualism.

Ironically, the very strictures which the Stoics placed upon the intellectual capacities of non-human species compelled them to acknowledge that animals, in at least one respect, live lives that are superior to those of human beings. Diogenes Laertius reports that

Zeno was the first Stoic to maintain that “the goal of life consists in living in accord with nature” (πρῶτος . . . τέλος εἶπε τὸ ὁμολογουμένως τῇ φύσει ζῆν, *Lives of the Philosophers* VII. 87). While this phrase was variously interpreted by subsequent Stoics and their commentators, the idea that man is obligated to live in accord with his rational nature and thereby to seek virtue was widely understood as essential to the principle. The human is expected to make wise choices and to avoid unwise choices, inasmuch as reason accords the human the opportunity to make deliberate choices. The best choice, for a rational human being, is virtuous behavior, for virtue is, according to Diogenes, “in itself worth choosing” (δὲ αὐτὴν εἶναι αἰρετήν, VII. 89). Human beings, though armed with reason, can of course act contrary to their best nature and choose vice over virtue.⁴⁸ But non-human animals, as irrational creatures, are incapable in Stoic doctrine of making a deliberate choice (βούλησις) or of acting in accord with rational impulse (ὄρεξις).⁴⁹ They cannot therefore give assent to acts that are contrary to their nature, that is, to acts which, in human beings, might be considered contrary to virtue. Animals therefore always act “in accord with nature.”⁵⁰ They attain the Stoic goal of life because they cannot do otherwise. Yet even this apparently positive aspect of animal life was negatively construed by the Stoics. Non-human animals, being incapable of a rational impulse toward virtue, cannot choose to do good or even understand the concept of goodness.⁵¹

Despite this concession on the part of the Stoics, assertions by the Sophists, Aristotle, the Stoics and the Epicureans, with their various applications of the principle that man alone of animals is rational left the intellectual horizons of non-human animals severely circumscribed. Before we examine the case developed by those figures who opposed the idea that man alone of animals is rational, we briefly summarize the arguments outlined above that were employed by the several schools of philosophy in support of that idea, and explore some of the ramifications of a lack of reason in the daily lives of non-human animals. For Aristotle, the lack of reason in non-humans manifested itself in numerous limitations. While in one passage (*Metaphysics* 980a28–30) Aristotle allows that other animal species have sensation (αἴσθησις, *aisthēsis*) and memory (μνήμη, *mnēmē*) (980a28), and that some animals are even “more intelligent and more able to learn” (φρονιμώτερα καὶ μαθηματικώτερα, 980b22–23), those that do not possess memory live by impressions (φαντασίσαις) and memory alone, while human beings live “also by technical skill and reasoning” (καὶ τέχνῃ καὶ λογισμοῖς, 980b28). The claim that non-human animals are devoid of “technical skill” is elaborated in

Aristotle's *Physics*, where he asserts that the actions of non-human animals are not the result of "design" (τέχνη, *technēi*, *Physics* 199a23) or any other pre-planned deliberation. Aristotle raises here the frequently-debated question of whether such things as spider webs, bird nests or beehives are the work of "intelligence or something like it" (νόη ἢ τινι ἄλλῳ, *Physics* 199a23), and he concludes that they are the result merely of the operation of "nature" (φύσει, 199a27).⁵² We have noted above the central role that technical skill played in the Sophistic vision of the rise of humans to the status of cultural beings, again the gift of their unique reason, an endowment that allowed humans to refashion nature to their specifications and to construct cities and societies that serve their needs.⁵³

The lack of articulate speech in non-human animals posited by the Sophists as well as by Aristotle and the Stoics and Epicureans was, they held, a direct result of their lack of reason, and had far-reaching negative consequences for those species in their relations with human beings since non-rational creatures were judged to have no ethical relationship with those that are rational. Aristotle had denied *logos* to non-humans in both senses in which that term was most commonly employed in Greek philosophical contexts, as "reason" and as "speech," declaring that "man alone of animals has speech" (λόγον δὲ μόνον ἄνθρωπος ἔχει τῶν ζώων, *Politics* 1253a10–11). As we have seen in other cases, however, Aristotle appears in his zoological treatises to attribute to non-human animals capacities that he denies them in his ethical and political works. In *Parts of Animals*, Aristotle observes, in the course of an extended discussion of the function of the tongue, that while all birds use their tongues in communicating with other birds, in the case of certain birds "there even seems to be information from some of them to the others" (ἐπ' ἐνίων καὶ μάθησιν εἶναι δοκεῖν παρ' ἀλλήλων, *Parts of Animals* 660b1–2). Along similar lines, he observes (*History of Animals* 535b1–2) that animals whose tongues do not move freely cannot produce speech, the implication being that those with freely moving tongues may be capable of speech.

For the Stoics, the absence of articulate speech in other animal species had graver consequences for them than seems to have been the case in Aristotle's view. Since, in Stoic teaching, non-human animals do not possess "internal reason" (*logos endiathetos*), their "uttered reason" (*logos prophorikos*), that is, their vocalizations, are devoid of meaning because they do not arise from reason. This circumstance contributes to the permanent alienation that renders any relation of interspecies kinship impossible.⁵⁴ The Epicureans agreed with the Stoics that a lack of articulate language in non-humans ruled out any relation of justice with them since they could not express a desire to

have their interests respected.

In the view of Greek philosophical schools from the Sophists through the Epicureans, because “man alone of animals is rational,” the remainder of animal creation is left to live “by nature” (*phusei*), forging even the most complex dwellings strictly by means unlearned and untaught, incapable of meaningful speech, unable to form societies, devoid of skills that might lead to culture and advancement. We have provided this summary of our analysis in this chapter of the arguments evolved by Greek philosophical schools to prove that man alone of animals is rational and to portray the formidable hindrances that animals living “by nature” alone encounter in their daily lives, in order to prepare us to revisit the cases for “human exceptionalism” developed by Mortimer Adler and Wesley J. Smith that we examined in the Introduction to our study.⁵⁵ Adler’s case for the proposition that “man alone of animals” possesses reason depends largely upon philosophical considerations while Smith, the bioethicist, views the question from the vantage point of the scientist, but their cases and their conclusions are strikingly similar, as is their ignorance of the fact that their arguments are almost without exception anticipated in Greek philosophical thought.

Adler’s contention is that man differs “radically in kind” from other species because man is capable of performing actions impossible for non-rational species.⁵⁶ The actions and activities that Adler catalogues as unique to human beings as rational creatures are remarkably similar to those claimed, from the time of the Sophists through the Epicureans, as the province of “man alone of animals”:

Only men make laws; only men make sentences; only men read, write and make speeches; only men build and operate machines; only men paint pictures that have some representative meaning; only men engage in religious worship; only men cook their food; only men walk erect; and so on.⁵⁷

Adler agrees with the Sophists and the Stoics that articulate speech is of paramount importance in raising man above other species, for it constitutes what he judges to be “the most distinctive mark of man.”⁵⁸ Man is nature’s only talking animal because man is nature’s only logical animal.⁵⁹ Adler seems here to be channeling the Stoics who stressed the interrelatedness of the two senses of *logos* as reason and speech.

Adler’s treatise ends with an analysis of the consequences for human thought and action that arise from his finding that man differs “radically in kind” from other animal species, for this difference, in his view, must have profound consequences for human action. Man, he

concludes, as nature's rational animal, will possess a "special dignity and respect accorded persons"⁶⁰ that is not due to other animals. Throughout history, he maintains, human beings have understood that *"an inferior kind ought to be ordered by a superior kind as a means to an end . . ."*⁶¹ Non-human animals are the inferior kind of creatures that Adler has in mind, beings that, as irrational entities, may be used by humans as they see fit. It cannot be wrong, he argues, for human beings to use animals for their own ends. After all, other animals exhibit only "instinctive patterns of behavior,"⁶² while the rational behavior of human beings allows them to lay claim to those beings that will lead them to greater happiness, for other animals are merely "instruments of human welfare."⁶³ While Adler seldom gives more than a nod to ancient thinkers who advanced the ideas that he champions, his treatise may be considered to be the working out, to its logical and sobering conclusion, of the sorts of assertions that we examined above in the works of Aristotle, Chrysippus, Cicero, Seneca, Philo and others, that serve to support the conclusion that humans have the right, without compunction, to use the remainder of animal creation to serve their needs because "man alone of animals" possesses reason and therefore holds primacy in nature's design.

The astonishingly brutal picture of human hegemony over the remainder of animal creation that Adler sketches in the final chapters of his treatise and that he develops from his dispassionate, logically rigorous argument in support of his hypothesis that man differs radically in kind from other species because of his unique possession of reason, finds its complement and concrete working-out in Wesley J. Smith's work. Smith is primarily concerned with combatting any attempt to remove human beings from their privileged position as a unique moral animal, which he views as the "antihuman ideology"⁶⁴ of the American animal rights movement. He defends the uses to which humans put non-human animals that benefit human life and that were, at least by implication, countenanced by Adler in his Stoical assertion that man has the right to use non-humans as he sees fit. As with Adler, Smith's list of achievements attainable by man alone of animals closely parallels the assertions of the Greek sources studied in this chapter. "What other species," he asks, "builds civilizations, records history, creates art, makes music, thinks abstractly, communicates in language, envisions and fabricates machinery, improves life through science and engineering, or explores the deeper truths found in philosophy and religion?"⁶⁵ Smith's concluding observation regarding his list of human achievements makes clear that he sees a close connection between man's rationality and his moral standing as he asks, "Who can reasonably deny that

human life is lived in mental and moral realms never before seen in the known history of life?"⁶⁶ Although the question of the consequences for human morality that follow upon the conclusion that man alone of animals is rational forms the subject of our next chapter, we may take up Smith's claims here because his work shows clearly that abstract and theoretical speculation, whether by the Stoics or by Adler, has real-life implications for the welfare of non-human species, especially when the interests of animals clash with human conveniences and comforts.

One small concession that Smith, as a member of the morally superior human race, makes to non-human animals is that "human exceptionalism" imposes upon man a duty to treat other species humanely, which is not to say, however, that the interests of non-human animals should be taken into account to the degree that those of human beings must be.⁶⁷ Although he stresses that wanton and gratuitous abuse of non-humans by humans is unacceptable, Smith cautions that to subscribe to a belief that the pain of non-human animals accords them moral status is "deeply wrong and subversive," specifically because it ignores the principle of "human exceptionalism."⁶⁸ Even more dangerous would be the granting of legal standing to non-humans, recognizing them as persons under law rather than as property, because "animal industries would be thrown into crisis."⁶⁹ Indeed, to do so would blur one of the "clear lines that distinguish people from animals."⁷⁰ In the case of the food industry alone, whose "nothing-goes-to-waste efficiency" Smith commends,⁷¹ according legal personhood to non-human animals would be tantamount to an attack on the industry's profitability and on what Smith views as the "legitimate use of animals."⁷² Smith adopts here a neo-Stoic stance, offering a modern take on the assertion of Epictetus that non-human animals are born only to be serviceable to human beings.⁷³ In Smith's view, human beings have the right to exploit the animal kingdom precisely because man alone of animals has reason.

Smith takes leave of his subject with an envoi almost hymnlike in its restatement of his case for "human exceptionalism," bolstered now by the awesome weight of religious tradition, as he reminds his reader of the Judeo-Christian concept of the intrinsic dignity of the human being that entitles all humans to equal moral worth. To discard the concept of human exceptionalism in favor of admitting non-humans into the sphere of human moral concern would, in Smith's estimation, give rise to a world in which "moral value would be subjective and rights temporary, depending on each animal's individual capacities at the time of measuring."⁷⁴ That is to say, no non-human animal, no matter how developed its "capacities" might be, can ever have the

value of even the most damaged and compromised human being. In a final swipe at the animals rights movement and its agenda, as he sees it, Smith charges that adherents of the movement, whatever their individual enthusiasms, “share an ideology that sometimes amounts to a quasi religion.”⁷⁵ Significantly, Smith had himself just called upon the Judeo-Christian tradition to support his contention that non-human animals can never be accorded the status that man can never forfeit. Smith’s argumentation illustrates the influence of Stoic ideas, filtered through Christianity,⁷⁶ still potent in current scientific and ethical discourse whose avowed intention it is to guard the boundary between the species.

Although we have identified instances of early thinkers, including some pre-Socratics, who placed a more generous construction on the mental capacities of non-human animals than did the Stoics,⁷⁷ the evolution of a systematic defense of the proposition that reason is not the exclusive province of man alone of animals is first encountered, in extant Greek texts, relatively late in the history of Greek philosophical thought, and in the work of individuals who lived in philosophical isolation under Roman rule. Hence arises the ironic fact that, while antiquity’s two chief advocates for the position that non-human animals are endowed with the faculty of reason, Plutarch of Chaeronea (ca. 50–120 ce) and the Neoplatonist Porphyry (234–ca.305 ce), are the only writers from whom virtually complete treatises survive that view animals from a philosophical rather than a zoological perspective vis-à-vis human beings, as creatures with intellectual and emotional dimensions akin to those of human beings, their contributions to the ancient debate on human–animal relations remain less familiar to students of ancient views on the nature of animalkind than do the views of Aristotle and the Stoics, and they have exercised little positive influence on the course of subsequent thought and behavior toward other species, especially once Stoicism found a receptive home in Christian doctrine.⁷⁸

In addition to the works of Plutarch and Porphyry that reach us in a good state of preservation, we encounter as well occasional less developed though highly intriguing arguments for the position that non-humans possess some degree of reason scattered in fragments and testimonies from other individuals who postdated those Stoics who formulated that school’s position on the limited intellectual faculties of non-human animals. Certain of these later discussions are directed specifically against tenets of the Stoic denial of rationality to non-human animals. We earlier touched on some aspects of the extended case for the presence of reason in non-humans that Philo’s nephew Alexander presents in Philo’s dialogue *On Animals*, in particular

Alexander's contention that all animals possess the "two types of reason."⁷⁹ Although Philo's treatise is intended to refute Alexander's arguments, the bulk of the case that Alexander makes closely parallels Plutarch's own arguments for the presence of reason in other species, and Philo's tepid attempt at refuting Alexander's case (*On Animals* 77–100) hardly addresses the majority of Alexander's anti-Stoic arguments.

Critical reaction to philosophical and ethological literature, since classical antiquity, suggests that it has always been easier to make the case that "man alone of animals" possesses reason than that he shares this faculty with the rest of animalkind, and that the arguments employed in defense of the proposition that all animals are to some degree endowed with reason are relatively easy to attack on multiple grounds. The arguments employed and the examples advanced by ancient writers like Plutarch who expressed wonder and admiration at the apparent intellectual feats of non-humans faced precisely the same censure aimed at the claims of modern ethologists and zoologists who endeavor now to demonstrate, for example, that other species have well-developed rational faculties, live by some code of justice in cohesive societies, and experience varied and satisfying emotional lives. Opponents of such claims charge that they rely on excessive anthropomorphization, common sense and anecdotal evidence.⁸⁰ More than a century ago, Adolf Dyroff, in the earliest thoroughgoing examination of Plutarch's animal-related treatises, charged that Plutarch did not possess the requisite scientific background to tackle zoological questions, could not make necessary distinctions in zoological matters, retailed anecdotes from mythology as valid scientific examples if they supported his argument, and failed to realize that the anthropomorphization of animal behavior poses a danger to research.⁸¹

We can hardly disagree with Dyroff's complaint that Plutarch is no Aristotle, and we must also agree with him that Plutarch does not always appear to grasp the subtleties of Stoic technical vocabulary relating to human and animal psychology, but it is undeniable that Plutarch built a case for his contention that reason is not restricted to man alone of animals but exists to a degree in all animals, a contention that relies on a demonstration that the premises of the Stoic case against animals contradict common sense and, if carried to their conclusions, are absurd. Plutarch develops his case for the presence of reason in non-human animals at greatest length in his dialogue known by its Latin name *De Sollertia Animalium* (*On the Cleverness of Animals*), rather than by its Greek title that translates as *Whether Land or Sea Animals Are Cleverer*. The Latin version of the

work's title reflects more closely the contents of chapters 1–7 of the work (959A–965D), while the Greek title refers to the comparison, in the manner of a contest, of the intellectual attainments of sea and land dwellers that occupies chapters 8–36 (965D–985C). The contest ends with no decision, although the interlocutors who defend each position are said by the judge to have made a good case “against those who deprive animals of reason and understanding” (πρὸς τοὺς τὰ ζῷα λόγου καὶ συνέσεως ἀποστεροῦντας, 985C), a final allusion to the dialogue's principal thesis that all animals possess reason to some degree.

In his dialogue *On the Cleverness of Animals*, Plutarch builds his case against the Stoic position on animal intellect by turning the “man alone of animals” claim on its head, asking how we are to suppose that other species can function and handle the demands of their lives if they are *not* to some degree rational. To argue for the uniqueness of reason as a human attribute is in itself an irrational undertaking and ignores the clear evidence of the senses, for we observe that all animals are in fact from birth capable of living successfully. Near the beginning of Plutarch's dialogue, Autobulus, one of the interlocutors and Plutarch's own father as well as the mouthpiece for Plutarch's own views in the dialogue, reminds his fellow-discussants that in the previous day's deliberations the thesis had been proposed that “all animals in some manner have a share of reason and intellect” (μετέχειν ἁμωσγέπως πάντα τὰ ζῷα διανοίας καὶ λογισμοῦ, 960A). He thereupon invites the interlocutors Aristotimus and Phaedimus to analyze how land and sea animals “differ in understanding” (διαφέροντα τῷ φρονεῖν, 960B), in order to allow a decision on which type of animals is “more clever.” Autobulus' choice of words here seems to issue a direct challenge to the premises of the Stoic case against reason-possession in other species and, as the dialogue develops, Plutarch expands on his conception of the senses in which the term “understanding” is to be applied in explaining the behavior of non-human animals.

The interlocutor Soclarus, who defends the Stoic position in Plutarch's dialogue, raises the objection that in the course of the previous day's debate the Stoic doctrine of opposites in the natural world had been mentioned, according to which, for example, the mortal is opposed to the immortal, the deathless to the perishable and the corporeal to the incorporeal (960B). So too we must suppose that the rational element in nature is opposed to the irrational.⁸² As man is the rational in this set of opposites, so are non-human animals the irrational. Autobulus counters that, while no one doubts that the irrational exists in the natural world, the logical opposite to the

rational is the “soulless” (ἄψυχον, *apsūchon*, 960C) since that which is “soulless” is likewise “irrational and without intellect” (ἄλογον καὶ ἀνοήτον, *alogon kai anoēton*, 960C). Not even the Stoics denied that non-human animals possess a soul, and all besouled creatures possess already at birth a soul that contains the “property of sensation” (τὸ αἰσθητικόν, *to aisthētikon*) and the “property of imagination” (τὸ φανταστικόν, *to phantastikon*, 960D). Autobulus then cites with approval the dictum of Aristotle that nature does nothing without a purpose so that, Autobulus contends, there would be no purpose in nature fashioning a living creature with sentience merely to enable it to sense passively when something happens to it, while not making any more active use of that sentience, specifically to enable it to distinguish between the friendly and the harmful and the useful and the useless and that which ought to be pursued and ought to be avoided (960F). Animals could not make such essential decisions without the capacities of “expectation” (προσδοκίαν, *prosdokian*, 960F), “memory” (μνήμην, *mnēmēn*, 960F), “intention” (πρόθεσιν, *prothesin*, 960F) and “preparedness” (παρασκευήν, *paraskeuēn*, 960F). Such capacities and the life skills that they provide could not exist, Autobulus concludes, in creatures “that are not born to reason, to judge, to remember and to pay heed” (τοῖς μὴ λογίζεσθαι τί και κρίνειν καὶ μνημονεύειν καὶ προσέχειν πεφυκόσιν, 960F). He cites here, in support of his position, the view of the Aristotelian philosopher Strato that a creature cannot have sensation “without some intelligence” (ἄνευ τοῦ νοεῖν, 961A).

Autobulus offers a specific example of how intelligence operates in non-human animals in the case of animal memory. Just as the capacity for reason allows an animal to distinguish between the harmful and the beneficial, so does it allow the animal to remember its former experiences of the harmful and the beneficial, for an animal must have some recollection of its previous experiences with such things as lairs and traps to enable it to know how to act when it encounters such phenomena at a later date (961C). Indeed, Autobulus concludes his argument, the Stoics run into a logical contradiction when they punish their dogs and horses with the intention of disciplining them and engendering in them a sense of repentance (μετάνοιαν, *metanoian*, 961D), which would be pointless if the animals could not reflect on why they were being punished.

Plutarch’s case for the presence of reason in non-human animals takes careful account of a possibility that the Stoics refused to countenance, namely that non-humans might possess a degree of rationality while not being endowed by nature with the fullness of reason that human beings might exhibit. Plutarch’s position is that

rationality in animals differs quantitatively rather than qualitatively from its manifestation in human beings, so that, as Autobulus argues, it would be absurd to demand the fullness of reason in creatures not designed by nature to possess that fullness of reason. Hence the Stoics are wrong to brand the imperfect reason of non-human species as indicative of the absence of reason rather than as evidence for its “impure state and lack of perfection in excellence” (τὸ μὴ καθαρὸν μηδ’ ἀπηκριβωμένον πρὸς ἀρετὴν, 962B). It is quite obvious, Autobulus maintains, that nature implants reason in creatures, but that that reason attains to perfection only through education and care, advantages which do not lie open to non-human animals (962C). In fact, not even human beings attain to that perfection of reason, but “there is a share of reason in all besouled creatures” (τοῦ λογικοῦ πᾶσι τοῖς ἐμψύχοις μέτεστιν, 962C). We should therefore not state that non-human animals lack reason and intellect, but rather that their intellectual faculties are less acute than those of humans, being weak and clouded like eyes with blurred vision (963B). Moreover, not every non-human animal demonstrates the same degree of reason, for in the same manner that we observe that some species are more courageous than others, so are some more advanced in their reasoning capacity than are others (962D). Clearly, one could not speak of an animal as mad or as rabid if it did not possess a modicum of reason in the first place that could become troubled by disease, for it is absurd to argue for the derangement of a mental capacity that is absent to begin with (963E).

Plutarch also set himself the task of refuting the Stoic denial of the presence of the “two *logoi*” in non-human animals, relying on a style of argument that might now be branded as excessively anecdotal and anthropomorphizing. Birds that are capable of talking, including jays, starlings and parrots, offer clear evidence, he asserts (972F), of possessing both types of reason. They demonstrate both the ability to imitate human speech and to instruct their animal peers to do so, thereby “teaching us that uttered reason and articulate speech are present in them” (διδάσκοντες ἡμᾶς ὅτι καὶ προφορικοῦ λόγου καὶ φωνῆς ἐνᾶνθρωπον μέτεστιν αὐτοῖς, 973A). He backs up his theoretical assertions with an example. A jay living at Rome, after hearing the notes of a trumpet on the occasion of a funeral, fell silent and was presumed to have been struck deaf by the sound, but suddenly uttered the exact notes of the trumpet while refusing to practice its usual tunes, from which Plutarch concludes that the bird deliberately chose to repeat only the sounds of the trumpet, by a process of self-instruction. This, Plutarch asserts, shows that “self-instruction is more indicative of reason in them than is quickness to learn” (τῆς εὐμαθείας

λογικωτέραν εἶναι τὴν αὐτομάθειαν ἐν αὐτοῖς, 973E). In Stoic doctrine, the capacity for utterance resides in the *hēgemonikon*, the “governing principle” of the soul, which the Stoics believed remained irrational in non-human animals, so that animal vocalizations, not arising from reason, are without meaning. Plutarch argues that the jay’s deliberate choice of what utterances to bring forth proves the presence of a degree of reason: the jay’s “internal reason” (*logos endiathetos*) prompted consciously chosen “uttered reason” (*logos prophorikos*).

Plutarch continues to argue for the presence of reason in non-human species even after he has concluded his formal argument for that thesis in the first seven chapters of *On the Cleverness of Animals* (959A–965D) and has taken up the “comparison” of land- and sea-dwelling animals, now arguing that such capacities as nest-building, food acquisition, lair construction and behavioral qualities like courage and endurance argue for the presence of a rational element in all animals, for these very capacities are cited by philosophers as proof of the presence of a share of reason in non-human animals (966B). Unfortunately, Plutarch does not name the philosophers who agree with his contention, but the premise that lies behind his assertion is that non-human animals demonstrate evidence of the sorts of “technological skill” (τέχνη, *technē*) that earlier thinkers including the Sophists had declared responsible for man’s rise in nature’s scheme.⁸³ While detractors of animal intelligence, including the Stoics, declared such skills as Plutarch enumerates to be the product of “nature” (φύσις, *phusis*), Plutarch counters that the “nature” of *all* animals is to be rational. Hence, to “live in accord with nature,” the Stoic goal of life, means to live by the dictates of reason, which operates in all species in varying degrees.⁸⁴ In Plutarch’s dialogue entitled *Gryllus*, or *Whether Beasts Are Rational*, a humorous parody of the scene in the *Odyssey* (X. 136ff) in which Odysseus offers to induce the witch Circe to reconvert his men to human form, the pig Gryllus (“Oinker”), a former shipmate of Odysseus, declines his offer, in part because he has come to understand, having had the opportunity to live as both a human being and a pig, that non-human animal life is in fact preferable because non-humans cannot help but live entirely in accord with their nature, untouched by the excesses and vices of human beings. For non-humans, Gryllus argues, “nature is everything” (τὸ ὅλον ἢ φύσις, *to holon hē phusis*, *Gryllus* 990D). Thus, non-human animals are not subject to the vices and perversions to which human beings, with their superior reason, may be tempted through misuse of their reason.⁸⁵ Gryllus is so impressed by the force of his own argument that he confesses himself surprised that he had ever allowed

“the Sophists” (probably the Stoics) to convince him that “all animals except man are irrational and mindless” (ἄλογα καὶ ἀνόητα πάντα πλὴν ἀνθρώπου, *Gryllus* 992C). The Stoics were themselves aware of this irony in their doctrine, and Plutarch uses it here as a further example of the logical difficulties that the Stoics made for themselves in their position on the intellectual limitations of non-human species. The “downside” of man’s vaunted reason lies in the possibility of its willful perversion, a situation that does not lie open to non-human animals. Full reason-possession is not an unalloyed joy, and is not without its dangers.

As we have noted above, Plutarch’s case for the presence of reason in non-human animals, set forth at length in the first seven chapters of *On the Cleverness of Animals*, rests primarily upon the premise that all animals are *to some degree* rational. To characterize that participation in reason, Plutarch employs forms of the Greek verb μετέχειν (*metechein*), “to share, to take part in,” five times within those seven chapters, and it appears twice in the comparative chapters that follow.⁸⁶ In the majority of these instances, the verb form appears in a reported statement, as Plutarch either cites an authority who supports his position or refutes an opponent who denies his position. In each instance, the verb is employed in the context of a discussion of the premise that “man alone of animals” possesses reason. In his argument for reason in non-human species, Plutarch has replaced anthropocentric exclusivity with a case for inclusiveness. In the following chapter, Plutarch’s position on the consequences for human conduct toward other species that follow upon a proof that non-human animals have a share of reason is analyzed.

The issue of the consequences for human conduct that arise from a demonstration of the presence of reason in all animals figures prominently as well in the third book of Porphyry’s treatise *On Abstinence from Animal Flesh*, and we shall have occasion to examine some sections of that book in the following chapter in which arguments for a debt of justice owed by human beings to their animal peers are investigated. We may note here that Porphyry’s polemic is heavily indebted to Plutarch’s *On the Cleverness of Animals*. Indeed, *On Abstinence from Animal Flesh* III. 20–24, wherein Porphyry argues for the need for just treatment for non-human animals on account of their “kinship” with human beings, reproduces, almost without alteration, long passages from *On the Cleverness of Animals* 959E–963F.

Prior to his incorporation of large tracts of Plutarchan material into his own text, Porphyry introduces a fairly detailed refutation of the “man alone of animals” claim that seems to him most worthy of

censure, namely the claim that only man has meaningful language (*On Abstinence from Animal Flesh* III. 2–4), a discussion that he indicates is directed against the Stoic position on the absence of reason in non-human animals, specifically against their doctrine of the “two *logoi*” (III. 2. 1). Porphyry employs an adjectival form (μέτοχα) of the Greek verb (μετέχειν, *metechein*, “to share in”) that, as we noted above, Plutarch repeatedly uses to characterize his belief that all animals have a share of reason, when he states that “animals capable of vocalizations are sharers in reason” (λόγου γε ὄντος μετόχα τὰ ζῷα τὰ φωνητικά, III. 3. 3), each species according to the customs that the gods and nature gave to it. In arguing that all animals are endowed with both *logoi*, internal and external, Porphyry adopts a mode of argument not encountered in Plutarch: if the “external reason,” that is, the vocalizations, of non-human species are incomprehensible to human beings, humans are not therefore justified in concluding that those vocalizations are without meaning, as the Stoics would claim, for the Greeks do not understand the utterances of the Syrians, Thracians or Persians, but they do not therefore conclude that those utterance are meaningless (III. 3. 4). We must make the same concession in the case of the utterance of other species whose language we have not yet learned but which we nevertheless feel justified in branding as meaningless. Porphyry’s argument takes a fanciful turn here when he observes (III. 3. 6) that some have claimed that certain individuals in previous generations were indeed capable of understanding the language of non-human animals, including the seers Melampous and Tiresias, and he mentions further that he himself had a friend who claimed to have had a slave who understood the speech of all bird species. Porphyry take leave of his discussion of speech in non-human animals with the observation, with which Plutarch would have agreed, that internal *logos* across the animal kingdom differs not in essence but merely in degree (*On Abstinence from Animal Flesh* III. 7. 1).

The argument that we cannot conclude that animal utterances are without meaning simply because we humans cannot understand them appears again in the *Outlines of Pyrrhonism* of the Skeptic Sextus Empiricus.⁸⁷ Sextus’ attempt to argue for a share of reason in non-human animals appears to arise not so much from a deep interest in animal mentality as from a desire to refute the Stoics, whom Sextus brands as the “dogmatics” (δογματικοί, *dogmatikoi*, *Outlines of Pyrrhonism* I. 62). He explains that his own sect, the Skeptics, are wont to consider most human beings akin to irrational animals, an indication of contempt for the so-called excellences of human beings on the part of his philosophical peers, and he contends that non-

human species must be possessed of the “internal reason” of the Stoics because even dogs, the creature reckoned as “lowliest” by the Stoics, undoubtedly can tell the difference between the beneficial and the harmful and can successfully avoid the latter. With regard to “external reason,” dogs are observed to emit a variety of utterances that seem attuned to their present situations, suggesting a meaningful language. His conclusion from these facts (I. 76) is that non-human animals must be judged inferior to humans in neither of the two *logoi*, and that their “sensations” (φαντασίαι, *phantasiai*, I. 76) are as trustworthy as those of human beings.

Our examination in this chapter of Greek claims of the unique presence of reason in human beings, and of counterclaims that humans share that faculty to some degree with other species, has focused upon arguments designed either to support or to refute the thesis that man alone of animals is rational. It is noteworthy that all defenders of the premise that non-human animals have a share of reason whom we have examined, including Plutarch, Porphyry, Philo’s nephew Alexander and Sextus Empiricus, have included in a prominent position arguments for the presence of meaningful language in non-humans, and in doing so have maintained that non-human animals have a share of both of the so-called “two *logoi*.” This is of the utmost importance since the possession of meaningful language remains perhaps the defining feature of humanness for many philosophers and natural scientists into the twenty-first century, the feature upon which claims of “otherness” in non-human animals most narrowly depend.⁸⁸ The relevance for human morality of the presence or absence of reason, as it manifests itself in language and in other forms in non-human animals, as the Greeks addressed the question and as it survives in philosophical and scientific discourse in our own time, forms the subject of the following chapter.

Notes

- 1 See especially Preface, pp. viii–ix.
- 2 Renehan 240. He remarks here that the conviction that man differs from other species because of his intelligence, while widespread in Greek sources, is elsewhere “an exceptional mode of thought in the history of man.”
- 3 Renehan 240.
- 4 See Introduction, pp. 1–4.
- 5 On Hesiod’s famous pronouncement, see [Chapter 2](#), pp. 11–12.
- 6 The significance of Alcmaeon’s statement is discussed in [Chapter 2](#), p. 13.
- 7 On efforts by some pre-Socratics to isolate communalities between humans and

other animals, see [Chapter 2](#), pp. 12–15.

- 8 Dierauer, *Tier und Mensch im Denken der Antike* 39, “Die Behauptung, daß der Mensch sich durch seine Vernunft grundlegend von den Tieren unterscheide und daß die Tiere ohne Verstand und Einsicht lebten, gehört zu den folgenreichsten Thesen des fünften Jahrhunderts.”
- 9 Heath 7.
- 10 Sorabji, *Animal Minds* 10.
- 11 The essays in Jeremy Bell and Michael Naas, eds., *Plato’s Animals: Gadflies, Horses, Swans, and Other Philosophical Animals* (Bloomington: University of Indiana Press, 2015) do an excellent job in analyzing Plato’s metaphorical use of non-human animal species while offering insights into the philosopher’s views on the intellectual capacities of non-humans. See also Newmyer, “Being the One and Becoming the Other,” pp. 514–517.
- 12 Vegetti, *Il Coltello e lo Stilo* 37, reminds us that Aristotle’s system of animal classification held sway into the nineteenth century, “Tuttavia, è un dato di fatto che proprio in questi trattati, dal *De partibus* al *De generatione*, vengono costituendosi i lineamenti di un potente sistema di classificazione degli animali, destinato a dominare il sapere zoologico fino a Buffon e Cuvier. . . .”
- 13 Sorabji, *Animal Minds* 2.
- 14 William W. Fortenbaugh, “Aristotle: Animals, Emotion, and Moral Virtue,” *Arethusa* 4 (1971) 137–165, argues that Aristotle never sought to reconcile these two views, finding them both advantageous for the sort of subject-matter that he happened to be discussing. He observes (157), “Both the biological view of the zoological treatises and the bipartite view fundamental to ethical and political treatises are possible ways of viewing the world. But they are different. Bipartition is a peculiarly human framework for classifying human actions.” Apparent contradictions between Aristotle’s pronouncements on animal intellect and emotion in the zoological treatises and in the ethical and political works are therefore not so much a confusion or even inconsistency on the philosopher’s part, but rather a “shifting of frameworks” (151). Fortenbaugh considers some of Aristotle’s apparent contradictions to arise from a dependence at times on Platonic views on animal psychology.
- 15 Non-human animal behavior which appears to be innate, unlearned and unreflective is often designated in classical sources as occurring “by nature” (φύσει) as opposed to “by reason” (λόγῳ). On the concept of “instinct” in classical zoology, see Dierauer, *Tier und Mensch im Denken der Antike* 52–59 and, more recently, his “Raison ou Instinct? Le Développement de la Zoopsychologie Antique,” in Barbara Cassin and Jean-Louis Labarrière, eds., *L’Animal dans l’Antiquité* (Paris: Vrin, 1997) 3–30.
- 16 In his penetrating analysis of Aristotle’s uses of the technical term φρόνησις (*phronēsis*) in his zoological and non-scientific treatises, Jean-Louis Labarrière, “De la Phronesis Animale,” in Daniel Devereux and Pierre Pellegrin, *Biologie, Logique et Métaphysique chez Aristote* (Paris: Éditions du Centre National de la Recherche Scientifique, 1990) 405–428, argues that Aristotle applies the term φρόνησις to various types of practical intelligence that both humans and non-human animals possess in various forms and degrees. Non-humans accomplish the tasks peculiar to their species according to the type of practical intelligence and the degree of it that they possess.
- 17 Sorabji, *Animal Minds* 19.
- 18 Sorabji, *Animal Minds* 2.

- 19 Dierauer, *Tier und Mensch im Denken der Antike* 155, comments on *Politics* 1256b15–23, “Diese radikal anthropozentrische Äußerung steht bei Aristoteles völlig vereinzelt da,” although he reminds us that Aristotle’s focus here is on the nature of societies rather than on the natural hierarchy of species. Steiner, *Anthropocentrism and Its Discontents* 57–60, similarly warns against making too much of Aristotle’s apparent statements on human “superiority” over non-human animals.
- 20 On the question of the authorship of *History of Animals* VIII, see, for example, Dierauer, *Tier und Mensch im Denken der Antike* 166 and “Raison ou Instinct?” 17, and the helpful comments in the Introduction to D. M. Balme and Allan Gotthelf, eds., *Aristotle: Historia Animalium, Volume I: Books I–X: Text* (Cambridge: Cambridge University Press, 2002) 1–13. In his life of Theophrastus, Diogenes Laertius (V. 49) lists among his works one volume *On the Intelligence and Character of Animals*, which some feel may bear some relation to the eighth book of *History of Animals*, being either itself the lost book of Theophrastus or at least a work contemporary with the book of Theophrastus. On this lost book, see Dierauer, *Tier und Mensch im Denken der Antike* 164–166.
- 21 On Aristotle’s contribution to the concept of the Great Chain of Being, see the classic exposition of Arthur O. Lovejoy, *The Great Chain of Being* (Cambridge, MA: Harvard University Press, 1936) 55–59. In her stimulating if somewhat quirky study, *Dumb Beasts and Dead Philosophers: Humanity and the Humane in Ancient Philosophy and Literature* (Oxford: Oxford University Press, 2007) 97–132, philosopher Catherine Osborne takes a fresh look at Aristotle’s *scala naturae* and emphasizes that Aristotle does not mean us to understand that increasing biological complexity implies superiority. Aristotle’s chain of being represents, in her view, what she terms a “non-hierarchical hierarchy” (102) that is devoid of ethical implications for non-human animals.
- 22 Sorabji, *Animal Minds* 13.
- 23 Guthrie, *In the Beginning* 62, laments that Aristotle’s concept of the fixity of animal species hindered the development of scientific theory, “It was, one must admit, Aristotle who burdened science for centuries with the dogma of the fixity of species. It is strange to have to say this of the man who emphasized strongly the difficulty of drawing a line between living and non-living.” Guthrie refers to the fact that Aristotle merely notes how one creature, plant or animal, approximates the next by gradual steps, without claiming that one develops into a more complex creature through biological descent from less developed creatures. Ludwig Edelstein, “Aristotle and the Concept of Evolution,” *Classical Weekly* 37 (1944) 148–150, points out that Aristotle had stated (*Generation of Animals* 731b35) that the “class of men and animals and plants is eternal” (γένος αἰεὶ ἀνθρώπων καὶ ζῴων ἐστὶ καὶ φυτόν), which seems to argue against the assumption that Aristotle countenanced any belief in evolution if man cannot come from another species. In addition, at *On the Heaven* 282a31, Aristotle had stated that that which does not perish has never been generated. Hence, if the class of man is eternal, man cannot have come from another species. Edelstein concludes (150), “In my opinion, there can hardly be a doubt that the philosopher Aristotle was not an evolutionist.”
- 24 The standard edition of the fragments of the earlier Stoics and of testimonies relating to earlier Stoic doctrine is that of Johannes von Arnim, *Stoicorum Veterum Fragmenta* (Stuttgart: Teubner, 1905; rept. 1964) = *SVF*.
- 25 Steiner, *Anthropocentrism and Its Discontents* 77.
- 26 See [Chapter 3](#), pp. 28–29.

- 27 On this passage, see above, p. 49.
- 28 On Aristotle's statements on the value of studying even the humblest species, see above, p. 46. Porphyry (ca. 234–305 ce), in his discussion of this Stoic notion, makes the droll observation that we cannot after all be certain that human beings are not born to be the food of crocodiles or whales or snakes (*On Abstinence* III. 20. 6), a point that should be kept in mind by swimmers who object to being bitten by sharks while in their home waters. Porphyry is expanding here on his mention of the objection raised to the Stoic position by the Academic philosopher Carneades (214–129 bce) who contended that, if nature makes all things for man's use, what use could nature have had in mind for flies and mosquitoes? In Cicero's treatise *On the Nature of the Gods*, he allows his Stoic mouthpiece Balbus to argue (II. 157) that animals are so completely intended by the gods to be of service to humans that their grazing in pastures may even be viewed as a theft against humans.
- 29 A very helpful discussion of Augustine's anthropocentrism, with its absolute differentiation of the value of man against the remainder of creation, is found in Lau 100–103.
- 30 On Aristotle's views on the composition of animal souls, see above. p. 48.
- 31 Aetius, *Placita* IV. 21 (= *SVF* II. 827), Οἱ Στωϊκοὶ ἐξ ὀκτῶ μερῶν φασι συνεστάναι (τὴν ψυχὴν), πέντε τῶν αἰσθητικῶν . . . ἑκτοῦ δὲ φωνητικοῦ, ἑβδόμου δὲ σπερματικοῦ, ὀγδόου δὲ αὐτοῦ ἡγεμονικοῦ, ὅψ' οὗ ταῦτα πάντα ἐπιτέταται ("The Stoics say that [the soul] is made up of eight parts, five parts of the senses, . . . the sixth of utterance, the seventh of reproduction, and the eighth of the governing principle itself, by which these are all regulated"). For a more detailed discussion of Stoic doctrine on the make-up of the soul, see Stephen T. Newmyer, "Speaking of Beasts: The Stoics and Plutarch on Animal Reason and the Modern Case against Animals," *QUCC* N. S. 63, 3 (1999) 99–110.
- 32 Sorabji, *Animal Minds* 42.
- 33 See above. p. 47.
- 34 Heath 34
- 35 Heath 10.
- 36 See [Chapter 2](#), pp. 16–17.
- 37 The consequences, for human morality, of the absence of meaningful language in non-human animals is addressed below, [Chapter 5](#), pp. 81–85. On animal language, see Newmyer, "Speaking of Beasts" (note 31 above). The history of the concept of the two types of *logos* is discussed in Max Mühl, "Der λόγος ἐνδιόθετος und προφορικός von der älteren Stoa bis zur Synode von Sirmium 351," *Archiv für Begriffsgeschichte* 17 (1962) 7–56, especially 7–16 on the Stoics, in Jean-Louis Labarrière, "Logos Endiathetos et Logos Prophorikos dans la Polémique entre la Portique et la Nouvelle-Académie," in Cassin and Labarrière, eds., *L'Animale dans l'Antiquité* 259–279, and in Elisabetta Matelli, "Ἐνδιόθετος ε Προφορικός Λόγος: Note sulla Origine della Formula e della Nozione," *Aevum* 66 (2004) 43–70. Matelli is especially useful for her discussion of the concept of the "two *logoi*" in Theophrastus. Illuminating analyses of classical views on speech in non-human animals are provided in Thorsten Fögen, "Antike Zeugnisse zu Kommunikationsformen von Tieren," *Antike und Abendland* 53 (2007) 39–75 and "Animal Communication," in Campbell, *The Oxford Handbook of Animals in Classical Thought and Life* 216–232.
- 38 Philo's treatise *On Animals* may be studied in English translation in the excellent edition of Abraham Terian, *Philonis Alexandrini de Animalibus: The*

- 39 The translation is that of Terian (see note 38) 71.
- 40 The translation is that of Terian 107.
- 41 For further discussion of Philo's conception of the animal soul, see Stephen T. Newmyer, "Philo on Animal Psychology: Sources and Moral Implications," in Samuel Kottek and Manfred Horstmanshoff, eds., *From Athens to Jerusalem: Medicine in Hellenized Jewish Lore and Early Christian Literature* (Rotterdam: Erasmus, 2000) 143–155.
- 42 On the centrality of the concept of self-preservation, manifested through affinity or repulsion, to the Stoic concept of moral value, or lack of value, in animals, see [Chapter 5](#).
- 43 Dierauer, "Raison ou Instinct?" 22–23, "Certes, Aristote et les stoïciens s'accordent à refuser l'intelligence aux animaux, mais cela signifie, pour les stoïciens, un fossé profond entre homme et animal. . . ."
- 44 Jo-Ann Shelton, "Contracts with Animals: Lucretius, *De Rerum Natura*," *Between the Species* 11 (1995) 115–121, argues that the fervent Epicurean philosopher-poet Lucretius maintained, in contradiction to the Master, that human and non-human animals do in fact enter into wordless "contracts" with one another to exchange goods and services in the mutual interest of all creatures concerned. In "Lucretius on the Use and Abuse of Animals," *Eranos* 94 (1996) 48–64, Shelton expands her argument that humans can enter into contracts with non-human animals, maintaining that Lucretius taught that humans fail to understand the meaning of true Epicurean "pleasure" (*voluptas*) when they abuse animals in warfare or religion and thereby violate the natural cooperation between the species that such contracts indicate.

It is important to keep in mind that Epicureanism, as a philosophical system, is in itself neither pro- nor anti-animal, any more so than it is pro- or anti-human. The Epicurean universe is made up of atoms in constant motion, and creation operates randomly and without divine intervention. In contrast to the Stoic view of the universe in which human beings are privileged because they are the special concern of the gods, humans do not enjoy this advantage in the Epicurean system since the gods do not interfere in human life and take no interest in the doings of mortals. Justice, for the Epicurean, although operative solely between human beings, is a matter of convenience and not divinely sanctioned.

- 45 See [Chapter 2](#), pp. 12–13.
- 46 Seneca's treatise *Naturales Quaestiones* (*Natural Questions*) is illustrative of the Stoic attitude toward the natural sciences. Seneca covers such topics as the physical causes of winds, volcanoes and earthquakes because explanations for such phenomena help man to understand the working of god in the *cosmos*. Roger French, *Ancient Natural History* 171, explains Seneca's Stoic approach to the study of nature, "Natural studies are (he concludes) therefore very germane, since they may tell us the nature of God; at the very least they teach us how to face life properly."
- 47 Dierauer, "Raison ou Instinct?" 22, remarks, "Les stoïciens ne parlent bien sûr pas comme Aristote d'animaux intelligents (*phronima zōia*) ou de quelque chose comme les différences d'intelligence parmi les animaux; selon eux, tous les animaux sont dirigés par la nature. . . ."
- 48 A clear exposition of the potential significances of the Stoic concept of living in

accord with nature is provided in Tad Brennan, *The Stoic Life: Emotions, Duties, and Fate* (Oxford: Clarendon Press, 2005) 134–153.

- 49 On the mechanics of choice in Stoic doctrine, see above, pp. 56–57.
- 50 In his animal-related treatises, Plutarch discusses in some detail the concept of animals living naturally in accord with nature, in the course of his attempt to refute the Stoic position on the lack of reason in non-humans. See below, pp. 66–67, and Stephen T. Newmyer, *Animals, Rights and Reason in Plutarch and Modern Ethics* (New York and London: Routledge, 2006) 38–39.
- 51 On the connection between choice, morality and interspecies kinship, see [Chapter 5](#), pp. 80–81.
- 52 On the “technical skill” of animals in classical thought, see Stephen T. Newmyer, “Tool Use in Animals” 3–17. The classic analysis of Greek texts that discuss the “technical skill” of non-human animals and the intellectual component that such actions as nest building, hive design and spider web construction might reflect, is Sherwood Owen Dickerman, “Some Stock Illustrations of Animal Intelligence in Greek Psychology,” *TAPhA* 42 (1911) 123–130.
- 53 See [Chapter 2](#), pp. 16–17.
- 54 See note 37 above for bibliography on the “two *logoi*.”
- 55 See Introduction, pp. 1–4.
- 56 Adler 54.
- 57 Adler 52. It is interesting to note that Adler’s other claims of skills possessed by man alone of animals are stated without any qualification, while his mention of the artistic endeavors of human beings is qualified to state that only humans “paint pictures that have some representative meaning.” Perhaps Adler is alluding here to some unspecified reports of a phenomenon that is now regularly cited by ethologists and other biologists, namely the fact that some non-human animals, including some apes and elephants, appear to enjoy painting, even if their artistic productions do not have “representative meaning.” A fascinating discussion of artistic creation in non-human animals is provided in Jeffrey Moussaieff Masson and Susan McCarthy, *When Elephants Weep: The Emotional Lives of Animals* (New York: Delacorte Press, 1996) 202–208.
- 58 Adler 112.
- 59 Adler 112.
- 60 Adler 257.
- 61 Adler 266. The italics are Adler’s.
- 62 Adler 271.
- 63 Adler 266.
- 64 Smith 2.
- 65 Smith 238.
- 66 Smith 238–239.
- 67 Smith 15.
- 68 Smith 36. Here Smith is attacking the views set forth in Richard Ryder, “All Beings That Feel Pain Deserve Human Rights,” *Guardian*, August 6, 2005.
- 69 Smith 69.
- 70 Smith 69–70. Smith appears to be one of those scientists who have not yet come to grips with the fact that people *are* animals.

- 71 Smith 82.
- 72 Smith 84.
- 73 See above, p. 53.
- 74 Smith 247.
- 75 Smith 248.
- 76 On Augustine's debt to Stoic notions on non-human animals, see above, pp. 53–54.
- 77 See [Chapter 2](#), pp. 12–15. Porphyry, *On Abstinence from Animal Flesh* III. 6. 7, contends that Aristotle, Plato, Empedocles, Democritus, and all who have attempted to understand the nature of animalkind, acknowledged that they share in the possession of *logos*. The sense in which Porphyry employs the term *logos* is unclear here, and his assertion would not be valid in the case of Plato or Aristotle if he means “reason.” The qualifying “share” may mean that the philosophers named acknowledged limited intellectual faculties and some capacity for intraspecies communication.
- 78 Plutarch's three animal-related treatises, along with his random discussions of non-human animals in other works, are examined in detail in Newmyer, *Animals, Rights and Reason in Plutarch and Modern Ethics*. For a succinct discussion of Plutarch on non-human animals, see Stephen T. Newmyer, “Animals in Plutarch,” in Mark Beck, *A Companion to Plutarch* (Oxford: Blackwell, 2014) 223–234. Plutarch's advocacy of non-human animals, not least his contention that other species deserve justice from human beings, is extraordinary for his time, and his sympathy for the sufferings of other species is all the more remarkable when we reflect on the horrors visited upon animal species in the arena and the battlefield under the Roman Empire. Scholars have long noted Plutarch's affection for all animals, although they cannot pinpoint its source other than to suggest that he had a natural tenderness of heart that predisposed him to take sympathetic note of a number of classes of individuals who normally flew below the radar of classical authors. He wrote treatises on the proper way for a husband to treat his wife and on correct childrearing, in addition to his treatises that advocate kindness to all animals. Many decades ago, Vittorio d'Agostino, “Sulla Zoopsicologia di Plutarco,” *Archivio Italiano di Psicologia* 11 (1933) 30, commented on Plutarch's “largo senso di umanità,” and noted that his sensibilities foreshadow modern views on human duties toward non-humans. For further discussion and bibliography on Plutarch's animal-friendly mindset, see Newmyer, *Animals, Rights and Reason in Plutarch and Modern Ethics* 17–19.
- 79 See above, pp. 55–56.
- 80 An excellent investigation into the value and pitfalls of anecdote, anthropomorphization, and common sense in the study of non-human intellectual capacities is offered in Bernard E. Rollin, “Anecdote, Anthropomorphism, and Animal Behavior,” in Robert W. Mitchell, Nicholas S. Thompson and H. Lyn Miles, eds., *Anthropomorphism, Anecdotes, and Animals* (Albany: State University of New York Press, 1977) 125–133. Rollins cautions, 131, “Once one has in principle allowed the possibility of anthropomorphic, anecdotal information about animal mentation, one must proceed to distinguish between plausible and implausible anecdotes, plausible and implausible anthropomorphic attributions, remembering that, even if we are right to be skeptical, implausible accounts may turn out to be true.”
- 81 Adolf Dyroff, *Die Tierpsychologie des Plutarchos von Chaironeia* (Würzburg: Bonitas-Bauer, 1897) 46, “Plutarchos ist nicht einmal der Gedanke gekommen,

dass Vermenschlichung eine Gefahr für Forschung berge.”

- 82 The fragments and testimonies relating to the Stoic “theory of opposites” as it was developed in the work of Chrysippus, the great logician of the school, may be found in *SVF* II. 172ff.
- 83 On τέχνη as a contributing factor in man’s rise to supremacy in the animal world in Sophistic thought, see [Chapter 2](#), pp. 16–17 and note 36 there.
- 84 See note 51, above.
- 85 Christophe Bréchet, “La Philosophie de Gryllos,” in Jacques Boulogne, ed. *Les Grecs et les Animaux: Le Cas Remarquable de Plutarque* (Lille: Collection UL3, 2005) 43–61, argues that Gryllus’ thesis is that non-human animals are superior to human beings because non-human species have souls that are in harmony with the three parts of the soul differentiated in Plato, while human beings do not demonstrate such harmony. David Konstan, “A Pig Convicts Itself of Unreason: The Implicit Argument of Plutarch’s *Gryllus*,” *Hyperboreus* 16–17 (2010–2011) 371–385, argues that Gryllus, despite his pig form, presents his case as a human being in the shape of a pig because, in Greek thought, a human being transformed into an animal, as occurs in Ovid’s *Metamorphoses*, never “ends up partaking of both human and animal consciousness” (372). Hence Gryllus remains a human being, and Plutarch is mocking the pretensions of a man in the form of a pig that claims to possess reason (*logos*).
- 86 *On the Cleverness of Animals* 960A, 960D, 962A, 962C (twice), 966B, 967E.
- 87 On Sextus Empiricus on speech in non-human animals, see also above, p. 68. Dierauer, *Tier und Mensch* 268–270, discusses Sextus in connection with his anti-Stoic polemic.
- 88 On the centrality of language possession in man’s self-image, see Introduction, pp. 5–7, and the quote there from philosopher Mary Midgley that language possession is, for human beings, “the key to our castle.”

5 The Importance of Being Rational

Logos and Moral Value

My view is that the case for the moral standing of animals is weak, and that the contrary case is, by contrast, very powerful.

(Peter Carruthers, *The Animals Issue: Moral Theory in Practice*¹)

Assertions by Greek thinkers, especially by the Stoics, that man alone of animals possesses reason were often accompanied, as a sort of corollary, by the claim that reason-possession confers moral superiority. The Stoics argued that rationality confers upon a being a value and standing that non-rational beings lack.² Rationality “matters,” because absence of reason excludes an irrational being from moral considerability. If man alone of animals possesses reason, the Stoics argued, a human being has no obligations to other animal species: man “owes” them nothing. This stance has reemerged in contemporary philosophical discourse, when philosophers ask whether humans may justly overlook any interests that non-human animals may have in their own existence. In this chapter, we examine the case for the moral significance of rationality as it manifested itself in ancient thought, beginning with an analysis of how Stoic ethical philosophy, under influence from Aristotle, was, already in its most basic assumptions, predisposed to exclude non-human species from the sphere of human moral considerability, and we discuss the survival of this position in modern philosophical and scientific debate in an effort to understand why reason-possession was viewed as conferring value to rational beings and granting priority to their interests over those of non-rational beings that were consequently judged to lack moral standing. We shall also examine ancient and modern counterclaims that human beings, even if possessed of intellectual faculties superior to those identifiable in other animals, do not in fact differ from non-human animals in morally significant ways, and are not unique in possessing moral standing. The majority of the

arguments encountered in modern philosophical and ethological debate on the moral dimensions of reason-possession for non-human animals find parallels in classical sources.

In the course of our discussion in the previous chapter of Aristotle's denial of reason to non-human animals, we cited the view of philosopher Richard Sorabji that Aristotle was led largely by scientific considerations to his conclusion that animals lack reason.³ In contrast, the Stoics and Epicureans, according to Sorabji, felt a "moral concern" attendant upon the absence of reason in non-humans since both schools denied a debt of justice to other species on the grounds of their lack of reason, not to mention the Stoic conviction that other species were designed by providence for the use of humankind.⁴ Although Aristotle refrained from concluding, from the examples of intellectual activities that he attributed to man alone of animals, that humans are morally superior to other animal species, some of his conclusions must have been enormously compelling to Stoic and Epicurean philosophers in the formulation of their schools' positions on the moral status of animals. In his discussion of the limits on friendship that are imposed by inequalities of station in life (*Nicomachean Ethics* 1161a31–1161b11), Aristotle had declared that friendship cannot exist between master and subjects in a tyrannical system of government because there is nothing in common between them. As friendship is impossible between a craftsman and his tools, so too is justice, which cannot exist in relation to inanimate objects. Nor can friendship exist between a master and his horse or his ox, or even between him and his slave *qua* slave, although friendship is possible between a master and his slave *qua* human being (1161b5–6). The relation of justice can always exist with anyone who "can have a share in law and covenant" (δυνάμενον κοινωνῆσαι νόμου καὶ συνθήκης, 1161b7–8). Non-human animals are by their nature excluded from such a covenant, on the same grounds that preclude friendship between master and slave: they have "nothing in common" (μὴδὲν κοινόν, 1161a34). Because they are irrational, non-human animals cannot enter into covenants of justice with rational human beings and therefore fall outside the purview of human justice.

In the *Nicomachean Ethics*, Aristotle sets forth a complex tripartite definition of justice (δική, *dikē*; δικαιοσύνη, *dikaíosunē*), terms which he states may be employed in a number of senses (*Nicomachean Ethics* 1129a27–29). One type, distributive justice, is concerned with the correct distribution (διανομή, *dianomē*) of resources relying on a principle of equality or inequality of the persons receiving the resources. In this type of justice, attention is given to the degree to which a person deserves a share of resources (1131a25–26).

Corrective justice (τὸ διορθωτικόν, *to diorthōtikon*, 1131b25) is concerned with correcting incorrect distributions, and seeks to reestablish equality of the parties involved. Reciprocal justice (τὸ ἀντιπεπονθός, *to antipeponthos*, 1132b21) deals with requiting offenses with equal offenses. The examples that Aristotle gives in the course of his definition of justice involve exclusively human beings and their endeavors to reestablish equality and to defend their interests. Non-human animals are omitted because, as Aristotle maintained, they have “nothing in common” with humans. They have no understanding of justice and cannot demand it of human beings because they are irrational and have no meaningful speech.

In the *Politics*, Aristotle clarifies his denial of the possibility of a relationship of justice between human and non-human animals on the grounds that non-humans lack meaningful speech. The voice (φωνή, *phōnē*) of non-human animals suffices to enable them to produce sounds that indicate pain and pleasure, and thereby to share their recognition of these sensations with their conspecifics, but since “man alone of animals possesses speech” (λόγον δὲ μόνον ἄνθρωπος ἔχει τῶν ζώων, *Politics* 1253a10–11), it is impossible for non-humans to articulate any understanding of good and bad or just and unjust to human beings. Also in his *Politics*, Aristotle makes his famous pronouncement that, if “nature does nothing without purpose or in vain” (ἡ φύσις μὴθὲν μήτε ἀτελὲς ποιεῖ μήτε μάτην, 1256b21), it follows that non-human animals are designed for the use of man. Consequently, he continues, human beings have the right to conduct a “just war” (δίκαιον πόλεμον, *dikaion polemon*, *Politics* 1256b22) against animals and even against those humans who refuse to acknowledge their natural subservience to their superiors. It is interesting to note that, after having asserted in the *Nicomachean Ethics* that no relation of justice can exist between humans and non-human animals, he here allows that humans have the right to exercise justice against non-humans.⁵

Aristotle comes rather close here to positing a moral divide between human and non-human animals in the distinctions that he draws between humans as beings governed by a code of justice that can be articulated in meaningful language, and non-linguistic animals that cannot stand in a relation of justice with human beings, since only humans are capable of exercising and experiencing justice, which forms the moral link between humans. He stops short of employing his doctrine of intellectual differences between the species to argue that humans, as rational beings, are morally superior to irrational animals. This position would form a central tenet of Stoic moral philosophy, in which reason and morality become intertwined, although it may justly

be claimed that Aristotle laid the groundwork for the Stoic moralization of reason.⁶

For the Stoics, speculation on the ethical dimensions of rationality, and of language-possession and a claim to justice that might follow upon the possession of reason, was closely tied to and found its ideological basis in the complex concept of οἰκειῶσις (*oikeiōsis*), which has been considered by some to be the foundation of the entire Stoic ethical system.⁷ Although it has been termed “a central idea in Stoic thinking from the start,”⁸ scholars have long acknowledged the difficulty involved in capturing the meaning of the concept in modern terminology. Various translations as “kinship,” “affiliation,” “attraction,” “belonging,” and “appropriation,” the concept has been characterized by Gisela Striker as involving, in its most basic sense, a “recognition and appreciation of something as belonging to one.”⁹

While it is most closely identified with Stoic ethical philosophy, the cluster of ideas embodied in the concept of *oikeiōsis* is traceable already in pre-Socratic thought. The notion that humans and other animals are in some respects “akin” can be identified in testimonies relating to Pythagoras and in the fragments of Empedocles.¹⁰ Some scholars maintain that the concept was originated by Theophrastus on the strength of a passage in Porphyry claiming that the Peripatetic had argued that human beings are akin to all other animals because “the principles of their bodies are the same” (αἱ γὰρ τῶν σωμάτων ἀρχαὶ πεφύκασιν αἱ αὐταί, *On Abstinence from Animal Flesh* III. 25).¹¹ In contrast to Theophrastus, however, the Stoics developed the concept in a direction that focused on the differences between humans and other animals, rather than on their similarities. In his life of the Stoic Zeno, Diogenes Laertius offers a relatively straightforward explanation of some of the fundamentals of the concept as the Stoics understood it. According to the Stoics, he notes, the initial impulse of an animal is toward self-preservation because, from the very beginning of life, “nature affiliates a creature to itself” (οἰκειούσης αὐτῷ τῆς φύσεως ἀπ’ ἀρχῆς, *Lives of the Philosophers* VII. 85). A creature is at birth endeared to its own nature while at the same time it naturally feels alienated from that which it recognizes as not akin to its nature. It consequently welcomes that which is akin and repels that which is “foreign” or “other” (ἄλλότριον, *allotrion*). This sense of self constitutes what the Stoics termed the “first affiliation” (πρῶτον οἰκεῖον, *prōton oikeion*) which a creature perceives upon its recognition of its own “constitution” (σύστασις, *sustasis*).¹² At its earliest stage, *oikeiōsis* may thus be viewed as a creature’s natural inclination toward self-preservation.

Although the feelings of kinship and affiliation that are at the heart of the concept of *oikeiōsis* manifest themselves in all animal species, so that human beings recognize that they are akin to other human beings and non-human animal species recognize that they are akin to other animal species, human beings do not come to recognize an interspecies kinship with non-human animals. As human beings attain to the age of reason, which occurs either at the age of seven or of fourteen, depending upon the Stoic source discussing the concept,¹³ they begin to recognize that other humans are akin to them in the common possession of reason and to view non-human animals as outside the circle of kinship because non-human animals remain irrational and therefore are creatures that are “other” than human beings. As we have noted in our discussion of the Stoic conception of the eight-part soul identifiable in all animal species,¹⁴ the so-called “governing principle,” or *hēgemonikon*, does not attain to rationality in the case of non-human species while that of humans does. Although the concept of *oikeiōsis* may be envisioned as entailing an ever-expanding series of concentric circles that move out to a point where they eventually encompass all of humankind, non-human species fall forever outside these circles and cannot be accommodated or viewed as affiliated with human beings. Even young children, before they have attained to the age of reason, are included among those regarded as akin or affiliated to the remainder of humankind because they, unlike non-human animals, are the sort of creatures that by their nature have at least the potential to become rational.

For the Stoics, this sense of kinship or bonding that rational beings, that is, humans, sense to exist between themselves is the origin of justice, a notion that Porphyry expressly attributes to the Stoics when he observes, “The followers of Zeno posit kinship as the origin of justice” (τὴν δὲ οἰκειῶσιν ἀρχὴν τίθενται δικαιοσύνης οἱ ἀπὸ Ζήνωνος, *On Abstinence from Animal Flesh* III. 19). Human beings extend justice to other humans in recognition of this kinship, but withhold it from non-humans because of their lack of interspecies kinship. In his life of Zeno, Diogenes Laertius informs us that this is the view of the Stoics, and that Chrysippus had voiced this view in the first book of his treatise *On Justice*, “It is their opinion that there is no justice for us toward other animals because of their unlikeness” (ἀρέσκει αὐτοῖς μηδὲν εἶναι ἡμῖν δίκαιον πρὸς τὰ ἄλλα ζῶα διὰ τὴν ἀνομοιότητα, *Lives of the Philosophers* VII. 129). Similarly, Porphyry had noted (*On Abstinence from Animal Flesh* III. 1) that the Stoics taught that humans may extend justice only “to beings like us” (πρὸς τὰ ὅμοια) but not to “the irrational among animals” (τὰ ἄλογα τῶν ζῴων). As Porphyry’s assertion makes clear, the aspect of kinship, affiliation and belonging

that enables human beings to forge bonds of justice with each other, in the view of the Stoics, is the rational faculty that human beings share with each other but which they do not share with non-rational species. The Stoic definition of justice bears some similarity to the distributive and reciprocal types of justice articulated by Aristotle. For the Stoics, “justice is knowledge of paying back to each one that which is owed to each” (δικαιοσύνην δὲ ἐπιστήμην ἀπονεμητικὴν τῆς ἀξίας ἐκάστω, Stobaeus, *Eclogae* II. 59. 4 = SVF III. 262). Since human beings do not share kinship with non-human animals, there can be no question of paying back what is owed to creatures to which humans can owe nothing.

A serious hindrance that the Stoics envisioned to any relation of justice between the species was the incapacity of non-human animals to understand the concept of “the good,” which caused them to be unable to distinguish good and bad actions. The capacity to perform actions which may be judged to be good or bad requires the operation of *choice*: a creature must choose one course of action over another, and such a choice entails some sort of mental action. The Stoics were not the first Greek philosophers who speculated on the nature of choice and on the connection to rational activity that the exercise of deliberate choice might entail. Aristotle had defined “choice” (προαίρεσις, *proairesis*) as “thought related to desire” (ὁρεκτικὸς νοῦς ἢ προαίρεσις, *Nicomachean Ethics* 1139b5–6) or, conversely, as “desire related to thought” (ὄρεξις διανοητική, *Nicomachean Ethics* 1139b6), and he then declared man to be the creature in whom desire and reason are united. The origin of choice is “desire and reason directed toward some end” (προαιρέσεως δὲ ὄρεξις καὶ λόγος ὁ ἐνεκά τινος, *Nicomachean Ethics* 1139a33–34). In other words, a choice is a deliberate action carried out by the reason with a view of attaining some end. Non-human animals, according to Aristotle, cannot exercise deliberate choice because “choice is not shared with the irrational animals” (οὐ γὰρ κοινὸν ἢ προαίρεσις καὶ τῶν ἀλόγων, *Nicomachean Ethics* 1111b13–14). Choice also seems to be “very closely related to virtue” (οἰκειότατον γὰρ εἶναι δοκεῖ τῇ ἀρετῇ, *Nicomachean Ethics* 1111b6) and, Aristotle cautions, it must not be viewed as merely synonymous with voluntary behavior since it is much broader in operation. Children and non-human animals act in a voluntary manner, but they are not to be considered capable of deliberate choice (1111b7–9). Since choice allows human beings to take part in morally uplifting activities, they are unique among animals in being capable of experiencing happiness (εὐδαιμονία, *eudaimonia*), for their choices can lead to the sorts of noble ends that make a being happy. In a kind of inversion of the “man alone of animals” formula, Aristotle declares

that “in the case of no other animal, not of a cow or a horse, do we speak of it as happy” (οὔτε βοῦν οὔτε ἵππον οὔτε ἄλλο τῶν ζώων οὐδὲν εὐδαίμον λέγομεν, *Nicomachean Ethics* 1099b33–35).

Aristotle had made it clear that he considered the actions of animals to be voluntary, though not directed by the action of reason, but he was less clear as to whether he viewed animals, as irrational beings, to be responsible for their actions, that is, whether he considered rationality to be a prerequisite for moral responsibility.¹⁵ In the view of the Stoics, non-human animals differ from human beings in not being capable of according rational “assent” (συγκατάθεσις, *sunkatathesis*) to their actions. In the case of human beings, actions are declared by the Stoics to be “up to us” (ἐφ’ ἡμῖν) because human beings can give assent to, that is, accept or refuse, actions and can therefore be held responsible for those actions and be considered praiseworthy or blameworthy because of them. The actions of human beings, which follow upon rational assent, carry moral responsibility. The actions of non-human animals, in contrast, do not meet the criterion of being, so to speak, “up to us,” because non-human animals cannot withhold assent from their actions, and only actions that involve such a choice entail moral responsibility. The actions of non-human animals, governed by what the Stoics viewed as irrational “impulse” (ὁρμή, *hormē*), more narrowly reflect an animal’s interest in preserving its own existence, which constitutes the initial instance of the working of *oikeiōsis* in an animal’s life.¹⁶

If we keep in mind the fact that the Stoic conviction that man alone of animals possesses reason constituted a fundamental principle underlying the doctrine of *oikeiōsis*, it becomes an easy matter to trace the progression in Stoic thought from the idea that kinship is the origin of justice to the conclusion that non-human animals cannot share in the covenant of justice with human beings and therefore fall outside the scope of human moral concern. We noted above that Porphyry had stated that the Stoics located the origin of justice in *oikeiōsis*.¹⁷ This same point had been made with particular forthrightness by Cicero in his explication of the Stoic concept of “kinship” (Latin, *communitas*), when he observes that, while the Stoics held that human beings are “joined and united by nature in a common society” (*inter nos natura ad civilem communitatem coniuncti*, *De Finibus* [On the Ends of Good and Evil] III. 67), they maintained at the same time that “no sense of rightness exists between a man and animals” (*homini nihil iuris esse cum bestiis*, III. 67), so that men “can use animals without injustice for their own needs” (*uti ad utilitatem suam possint sine iniuria*, III. 67). “Kinship” extends only to those whom we recognize as being like us in the possession of reason. If no

relationship of justice exists between the species, human beings cannot be said to act unjustly toward other animals. As Porphyry had noted (*On Abstinence from Animal Flesh* III. 1), in the view of the Stoics, the right to a claim of just treatment lies in kinship, which humans share only with their rational fellow-humans.

Aristotle had maintained that a relationship of justice depends upon meaningful speech in the parties seeking to enter upon such a relationship, and that the utterances of non-human animals were sufficient only to allow them to indicate their pleasures and pains.¹⁸ Without meaningful speech, it becomes impossible for non-human animals to give utterance to any conception of good or bad or just or unjust. In any theory of justice that might be designated as “contract-based,” the connection between meaningful speech and moral status is paramount. Considerations of contract or covenant between parties seeking to enter into a relation of justice figure prominently in Stoic and Epicurean ethical philosophy. We have discussed the Stoic position that non-human animals are incapable of “uttered reason” (*logos prophorikos*), the sort of meaningful speech that issues from reason.¹⁹ Moreover, the theory of *oikeiōsis* in its underlying assumptions presupposes the participation of rational individuals capable of verbally expressing their recognition of their affinity with other rational individuals. The connection between speech and justice was likewise clearly articulated in the Epicurean concept of justice that arises from a vocalized “covenant” (συνθήκη, *sunthēkē*) between rational parties who express their desire to be treated with justice and their willingness to respect the desire of other covenanters to be so treated. Epicurus had declared such a covenant possible only between rational individuals, that is, between human beings (*Kuriai Doxai* XXXI-XXXII).²⁰ The possibility of according justice to non-human animals was viewed as nothing short of sacrilege in Philo’s treatise *On Animals*, in the final paragraph of which the Jewish philosopher, alluding to the Stoic doctrine of *oikeiōsis* without naming it, charges that any attempt to equate human and non-human animals with respect to their intellectual capacities is an insult to the deity and perverts the very concept of justice by insulting those, namely human beings, to whom nature has given its greatest gift, reason, by placing on their level those creatures, namely non-human animal species, that are by contrast almost invisible because of their intellectual limitations (*On Animals* 100).²¹

It is ironic that their concept of *oikeiōsis* led the Stoics to an exhilarating vision of the brotherhood of man, but to a harsh stance toward non-human species that emphasized their alienation and “otherness.” In the case of human beings, men were declared to be

“akin” in their common possession of reason and language, a principle forcefully expressed in Cicero’s description of the Stoic conception of the universe viewed as a city or state in which man and god are members (*mundum . . . censent . . . esse . . . quasi communem urbem et civitatem hominum et deorum*, *On the Ends of Good and Evil* III. 64). According to Seneca, this community exists because nature made all men from the same substances, assuring our relatedness to one another (*natura nos cognatos edidit, cum ex isdem et in eadem gigneret*, *Moral Letters* XCV. 52). Human beings are “parts of a great body” (*membra sumus corporis magni*, *Moral Letters* XCV. 52). Nature established in all men the property of mutual affection, and gave them the principles of equity and justice (*Moral Letters* XCV. 52). The Stoic-inspired explanations of justice founded upon human kinship and divine participation offered here by Cicero and Seneca recall Hesiod’s pronouncement on the origin of justice as a gift of the gods that served to differentiate man from the other animals (*Works and Days* 274–80).²² Stoic *oikeiōsis* doctrine, which makes justice dependent upon reason and language, provides here a philosophical justification for Hesiod’s bald assertion. At the same time, non-human animals, as irrational creatures, are intentionally absent from Cicero’s and Seneca’s conception of justice.

If we may trust Porphyry, the counterargument that non-human animals do in fact share kinship with human beings because of their common possession of at least a share of reason, and that they are therefore moral beings, may be traced in Greek thinkers as early as Aristotle’s successor Theophrastus, who contended, according to Porphyry, that non-humans are indeed akin to human beings in their common possession of “desires, urges and even reasonings” (ταῖς ἐπιθυμίαις καὶ ταῖς ὀργαῖς, ἔτι δὲ τοῖς λογισμοῖς, *On Abstinence from Animal Flesh* III. 25). If all creatures share these characteristics, Porphyry continues, then “all animals possess intelligence” (φρονοῦσι μὲν ἅπαντα φύλα, III. 25) while differing only in their upbringing and in the mixture of their components. If Theophrastus is correct, “the remainder of animalkind would be akin to and related to us” (παντ ἅπασιν ἂν οἰκεῖον εἴη καὶ συγγενὲς ἡμῖν τὸ τῶν λοιπῶν ζώων γένος, III. 25).²³ Non-human animals, in Theophrastus’ view, *matter* because humans cannot justly consider them merely for man’s use, as the Stoics maintained. Moreover, Theophrastus taught that it is an injustice for human beings to harm an animal that has not harmed us (III. 24). Although Porphyry’s main interest throughout his discussion of Theophrastus’ views is to identify the sorts of sacrifices that find favor with the gods, a topic which Theophrastus had apparently discussed, he provides us considerable insight on relatively early

opposition to the sorts of arguments that the Stoics would advance against the moral status of non-human animals.

The case of Theophrastus proves that it is possible, at a relatively early date, to isolate arguments in defense of the position that non-human animals have moral standing and are entitled to just treatment from human beings on the basis of intellectual capacities that they share, at least to some degree, with human beings, although a developed and multifaceted case for the moral standing to non-humans is encountered first in those later authors, Plutarch and Porphyry, who most vigorously argued that other animal species have at least a share of reason.²⁴ For them, reason-possession, even if that reason is imperfect, confers moral standing upon non-human animals and makes it incumbent upon human beings to take into consideration the interests of other animals in the preservation and pursuit of their own lives. While Plutarch's case for the moral standing of non-human animals focuses on a refutation of the Stoic position that justice is impossible between human beings and irrational animals, he argues as well that not only do human beings stand in a relation of justice with other species but that non-human animals demand from human beings that their interests be respected, and even practice justice in their interactions with human beings.

Elements of Plutarch's case for a relation of justice between human and non-human animals were included in all three of his animal-related treatises.²⁵ In the lengthiest and most systematically argued of these, *On the Cleverness of Animals*, Plutarch presents his case that, since all animals have at least a share of reason, human beings are obligated to treat them with justice. As with his case for the presence of reason in non-humans, so too Plutarch's case for the necessity of a relation of justice between species lies open to a charge of excessive reliance on anthropomorphization and anecdote.²⁶ Broadly stated, Plutarch's argument is that since all animals are to some extent possessed of reason and since their vocalizations are therefore evidence of an articulate, meaningful language that issues from reason, they must be reckoned akin to human beings. He endeavors to prove that the Stoics were therefore incorrect in denying that *oikeiōsis* operates between species.

The Stoic concept of *oikeiōsis* requires that all rational beings be understood to be members of a community of kindred individuals, and Plutarch denies that non-human animals can be excluded from such a community since, as his mouthpiece Autobulus states near the opening of the dialogue *On the Cleverness of Animals*, "all animals in some manner have a share of reason and intellect" (μετέχειν ἁμωσγέπως π

ἀντα τὰ ζῶα διανοίας καὶ λογισμοῦ, 960A). Plutarch is careful throughout this treatise to reiterate that non-human animals have only a “share” of the intellectual capacities that human beings have to a superior degree, although they nevertheless possess all those things “by which philosophers indicate the presence of a share of reason in animals” (δι’ ὧν οἱ φιλόσοφοι δεικνύουσι τὸ μετέχειν λόγου τὰ ζῶα, 966B), including purposefulness, memory, emotions, care for their young, courage, endurance and greatness of spirit.²⁷ Even if their intellectual endowments are inferior to those of human beings, non-human animals cannot be denied kinship with all rational beings since, after all, in Stoic teaching even pre-rational infants are welcomed into the community of the rational that the doctrine of *oikeiōsis* envisions.²⁸

Plutarch’s mention here of the “care for their young” (τέκνων ἐπιμέλεια, 966B) that non-human animals display forms an important link between his case for rationality in non-humans and his conviction that non-human animals stand in a relation of justice with human beings. In an earlier reference to parental care for offspring (*On the Cleverness of Animals* 962B), Plutarch had charged the Stoics with contradicting themselves when they maintained that “the love of offspring is the origin in us of community and justice” (φιλοστοργίαν ἀρχὴν μὲν ἡμῖν κοινωνίας καὶ διακαιοσύνης) and they acknowledged that this love is “present in animals in a powerful degree” (πολλὴν δὲ τοῖς ζῴοις καὶ ἰσχυράν), but then still denied that non-human species have a share in justice.²⁹ Autobulus also offers a solution to a dilemma that the Stoics claimed must necessarily arise if human beings welcome non-human animals into a covenant of justice. His opponent in Plutarch’s dialogue, Soclarus, who champions the Stoic position, complains that if human beings acknowledge that non-human animals have a share of reason, they will be forced to “spare them,” that is, to refrain from making use of them in their own lives, causing civilization to collapse and human life to become miserable if not impossible (964A). Soclarus sees no way out of this dilemma, since humans must either be unjust if making use of animals or, if treating them “without harm” (ἀβλαβῶς, 964A) and “as one should with all animals that are rational and akin to us” (ὥς προσήκει λογικοῖς καὶ ὁμοφύλοις πᾶσι τοῖς ζῴοις οὖσιν, 964A), end up incapable of sustaining human life at all. Autobulus counters with a solution that neither deprives other animal species of reason nor requires humans to treat them unjustly, for he argues that human beings incur no charge of injustice merely by using animals as partners in their labors (964F). Nor need we refrain from slaying antisocial and dangerous animals that seek to harm us (964F), a concession that is perhaps a nod to

Aristotle's doctrine of the "just war" that humans may wage against certain species (*Politics* 1256b26–27).

If his dialogue *On the Cleverness of Animals* sets forth Plutarch's case for a debt of justice toward non-human animals because of their "kinship" with human beings as fellow rational creatures, his plea for the vegetarian lifestyle, *De Esu Carnium* (*On the Eating of Flesh*), argues that non-human animals actively demand justice from humans, using a language that human beings cannot understand but which is nevertheless endowed with meaning. Plutarch thus addresses here the Stoic contention that justice requires language with which an individual may articulate a desire that his interests be taken into account by others. Apparently Plutarch intended to treat the topic of justice toward non-humans at some length in this treatise, for near the end of the work he mockingly quotes the Stoic axiom that "there is no bond of justice for us with irrational creatures" (οὐδὲν γὰρ ἡμῖν πρὸς τὰ ἄλογα δίκαιον, *On the Eating of Flesh* 999A), and in the last extant sentence of the second part of the mutilated treatise he repeats the axiom almost verbatim (999B), now stating his intention to examine the proposition at length.³⁰ Although the text breaks off at this juncture, Plutarch had earlier in the treatise offered a remarkable picture of animals at the point of slaughter begging for justice from their slayers with pitiful utterances that humans mistakenly regard as meaningless. Humans, in their desire for more elaborate meals, are satisfied to deprive animals that Plutarch characterizes as beautiful, clean and "exceedingly intelligent" (περιττὸν ἐν συνέσει, 994E), of the light of life to which they are entitled from birth, and ignore their cries and squeals, vocalizations that humans take for mere "inarticulate sounds" (φωνὰς ἀνάθρωπος, 994E), not recognizing that these are in fact "supplications and entreaties and calls for justice" (παραιτήσεις καὶ δεήσεις καὶ δικαιολογίας, 994E). Plutarch seems here to suggest that non-human animals do indeed have the "external reason" (*logos prophorikos*) of which the Stoics spoke, from which issue meaningful utterances that humans mistakenly assume are inarticulate and without meaning.³¹ Strikingly, Plutarch implies here that beasts at the moment of slaughter have a clearer grasp of the nature of fair play than do their human slayers since each animal voices its outrage at being deprived of the joys of its life merely so that a human being may "eat better" (ἵνα ἥδιον φάγη, 994E).³²

In the course of his argument that civilization would collapse if human beings refrained from using non-human animals, the Stoic apologist Soclarus had maintained that "we cannot treat unjustly those for whom it is impossible to act justly toward us" (οἷς δ' οὐκ ἔστι τὸ δικαιοπραγεῖν πρὸς ἡμᾶς, οὐδ' ἡμῖν πρὸς ἐκεῖνα γίνεται τὸ

ἀδικεῖν, *On the Cleverness of Animals* 964B). In defense of his position, Soclarus cites the verses of Hesiod that tell how Zeus gave justice (*dikē*) to human beings but not to other animals (*Works and Days* 277–279). Soclarus’ point is that non-human animals are not entitled to be treated with justice by human beings because they cannot understand the concept of justice and they therefore cannot extend justice to human beings in a reciprocal manner. In his scene of animals at slaughter (*On the Eating of Flesh* 994D), Plutarch had argued that non-human animals do indeed have a conception of justice, suggesting that both Hesiod and Soclarus have misjudged the boundaries and limitations of justice in animalkind. In addition, Plutarch maintains, using examples that again indicate his reliance upon anthropomorphizing anecdotes, that at least some animal species have an understanding of the concept of justice developed enough to prompt them to behave toward human beings in a manner that, if observed in humans, would likely be designated as “philanthropic,” and conversely to inspire them to “repay” acts of cruelty shown them by humans. Some species apply a sort of “code of justice” in their own lives which operates even in their interactions with humans. The examples that Plutarch adduces to back up his claim that non-human animals in some instances live by such a code and through their vocalizations demand justice in turn from humans, seem to cast doubt on both halves of Aristotle’s assertion that “man alone of animals possesses speech” (λόγον δὲ μόνον ἄνθρωπος ἔχει τῶν ζῴων, *Politics* 1253a10–11) and that therefore only human beings can verbalize an understanding of the beneficial and the harmful, since “it is unique to human beings, in contrast to other animals, to have alone the perception of the good and the bad and of the just and the unjust, and of other things” (τοῦτο γὰρ πρὸς τᾷλλα ζῶα τοῖς ἀνθρώποις ἴδιον, τὸ μόνον ἀγαθοῦ καὶ κακοῦ καὶ δικαίου καὶ ἀδίκου καὶ τῶν ἄλλων αἰσθησὶν ἔχειν, *Politics* 1253a17–19).³³

The idea that non-human animals can act “justly,” while perhaps most developed in extant sources in the animal treatises of Plutarch, is not unexampled elsewhere. In Philo’s dialogue *On Animals*, Alexander, who argues that non-human animals are to some degree rational, offers a number of examples of apparent just deeds on the part of certain species. He declares (*On Animals* 60) that sea, land and aerial animals alike practice justice.³⁴ Birds share food equally, while storks repay the care given them by their parents by feeding them and acting reciprocally as their caregivers in their old age. Animals are so just in their dealings that they invariably follow the leaders that they have chosen for themselves (*On Animals* 64).

In Plutarch’s animal treatises, the greater part of his case for the

position that non-human species practice justice in their own lives is developed in the final twenty nine chapters of *On the Cleverness of Animals* (965D–985C) in which the relative intellectual endowments of land and sea animals are compared. Although this division is artificial and zoologically worthless, this latter portion of the treatise serves to provide concrete examples of the intellectual and physiological properties attributed to animal species in the more theoretical framework of the first eight chapters of the work. What renders Plutarch’s assemblage of examples of non-human animals repaying acts of cruelty by humans or lavishing unsolicited kindnesses on them so intriguing is the fact that these actions, attributed to creatures deemed irrational by the Stoics, seem the very embodiment of the Stoic definition of justice as the “knowledge of paying back to each one that which is owed to each.” This desire to “pay back” mistreatment by human beings is recounted in ethically charged language in Plutarch’s anecdote of an elephant living at Rome that had been tormented by boys who pricked the animal with their styluses. When the elephant took hold of one boy and lifted him into the air, spectators thought the elephant “likely to destroy him” (ἐπίδοξος ἦν ἀποτυμπανίσειν, *On the Cleverness of Animals* 968E), but the animal returned the boy to the ground, “judging it justice enough for one of such an age to have been frightened” (ἀρκοῦσαν ἡγούμενος δίκην τῷ τηλικούτῳ φοβηθῆναι, 968E).

Dolphins in Plutarch are similarly concerned with justice in their interactions with human beings. One cannot be surprised at the solicitousness of dolphins for human beings in Plutarch since he had declared them to have a “human-loving nature” (τὸ φιλάνθρωπον, *to philanthrōpon*, 984C), and to be “the only creature that is fond of the human as human” (μόνος γὰρ ἄνθρωπον ἀσπάζεται καθ’ ὃ ἄνθρωπος ἐστὶ, 984C), a remarkable inversion of the “man alone of animals” claim. The dolphin is that animal that displays the trait sought by the best philosophers, “friendship without advantage” (τὸ φιλεῖν ἄνευ χρείας, 984D), which the animal directs “by nature toward human beings” (φύσει πρὸς ἀνθρώπους, 984D). This latter claim in particular suggests Plutarch’s desire to portray the dolphin as an animal possessing moral sensibilities that are revealed in his anecdotes of dolphin–human interactions. Plutarch recounts that a dolphin that had developed a friendship with a boy and had allowed him to climb onto its back had caused the boy to fall off during a storm and drown. The animal carried the corpse to shore and lay beside it until it too had died, “considering it just to take part in the death for which it thought itself responsible” (δικαιώσας μετασχεῖν ἧς συναίτιος ἔδοξε γεγονέναι τελευτῆς, 984F).³⁵

Plutarch's take on antiquity's most beloved and frequently repeated tale of an encounter between a human being and a friendly dolphin demonstrates clearly, in the variations and elaborations that he introduces, that he seeks to focus on the capacity of the dolphin to perform acts which we would readily admit contain a moral component if performed by human beings. In light of his generous inclusion of dolphin anecdotes in *On the Cleverness of Animals*, it is surprising that Plutarch's sole reference in that treatise to the famous tale of how the singer Arion was rescued by a dolphin is the offhand remark that no one is unaware of the story (984C). In his dialogue *Convivium Septem Sapientium* (*Banquet of the Seven Sages*), in which dolphin tales figure prominently and the topic of the intelligence of non-human species is touched on repeatedly, the story is recounted at some length with significant additions to the traditional tale.³⁶ At one point, the discussion takes up the topic of justice between the species when the interlocutor Solon expresses his dismay that the diet of human beings necessarily entails injustice because humans ingest living things (159B–C). Shortly after, the discussion turns to dolphins when the interlocutor Gorgus recounts that, when he was visiting the court of his brother Periander the tyrant of Corinth, he witnessed a group of dolphins bearing to shore the renowned singer and cithara player Arion of Methymna.

According to standard versions of the tale, Arion, while on an extended concert tour, had been robbed of his earnings and forced to jump overboard by the sailors whom he had commissioned to transport him. Plutarch's account of what transpired shows his desire to "moralize" the actions of the singer's animal rescuers when his version is viewed against other accounts. In Herodotus' unadorned version (*Histories* I. 23–24), a dolphin picks the singer up in the sea and carries him to land. No motivation is attributed to the animal's actions. In the version of Pliny the Elder (*Natural History* IX. 28), a number of dolphins approach the singer, attracted by his playing, but his rescue is effected by one dolphin. Pliny adds the significant detail that the dolphin is "an animal friendly toward man" (*homini . . . amicum animal*, *Natural History* IX. 24), a comment that adds a slight moralizing tinge to the anecdote, but the Roman still attributes no specific motive for the rescue. In Plutarch, a school of dolphins approach the floundering singer, in a manner that Plutarch designates as "well-disposed" (εὐμενῶς, *eumenōs*, 161D) toward the musician, and the animals passed Arion from one to another of their group, "relieving each other as if this were a duty necessary and incumbent upon them all" (διαδεχομένους ὡς ἀναγκαῖον ἐν μέρει λειτούργημα καὶ προσήκον πᾶσιν, 161D).³⁷ If we add to his portrait of the rescue of

Arion a further dolphin rescue that Plutarch recounts in the *Banquet of the Seven Sages*, namely that of the body of the drowned poet Hesiod, we are afforded some insight into Plutarch's view of the capacity of non-human animals to act in a manner that shows evidence of a concern for just conduct precisely because the animals are intellectually akin to human beings. He stated that, in recovering the body of Hesiod, the dolphins acted in a "kindred and human-loving manner" (οἰκείως καὶ φιλανθρώπως, 162F). Plutarch's animals exhibit that *oikeiōsis* that the Stoics had declared impossible between human and non-human animals, because their actions demonstrate both a degree of rationality and the possession of a language, comprehensible to them if not to human beings, that the Stoics demanded for inclusion in the sphere of human moral concern that is a benefit of kinship with human beings.

When we turn from Plutarch to the case for an obligation of justice toward non-human animals presented in Porphyry's *On Abstinence from Animal Flesh*, we encounter a more intellectualized manner of argument that relies somewhat less on anecdote and anthropomorphization than we find in his predecessor and that introduces spiritual considerations that are virtually absent from Plutarch, although Porphyry's case as a whole, like that of Plutarch, is built on the fundamental premise that, since non-human animals are to some degree rational and are capable of articulate speech, they therefore experience *oikeiōsis* with human beings that entitles them to just treatment from them.³⁸ Porphyry had cited the Stoic Zeno's maxim that kinship is the origin of justice (*On Abstinence from Animal Flesh* III. 19), and in the same passage in which he makes this reference, he elaborates his own view on the origin of this kinship, which he places in what he terms "perception" (αἴσθησις, *aisthēsis*). Non-human animals by their nature have the perception of being in pain (ἀλγεῖν, *algein*), of being in fear (φοβεῖσθαι, *phobeisthai*), of being hurt (βλάπτεσθαι, *blaptesthai*), and thus of being injured (ἀδικεῖσθαι, *adikeisthai*). Plants, being devoid of sensation, cannot be injured or harmed, for nothing is alien (ἀλλότριον, *allotrion*, III. 19) or bad to them and therefore there is no question of injustice (ἀδικία, *adikia*) involved in human interactions with them. This, Porphyry argues (III. 19), is because "perception is the origin of all kinship and alienation" (οἰκειώσεως πάσης καὶ ἀλλοτριώσεως ἀρχὴ τὸ αἰσθάνεσθαι, III. 19). Porphyry declares it irrational to maintain that human beings share a bond of justice with human beings who are savage and cruel, but not with non-human animals like our dogs and oxen that provide us with useful services.³⁹ At the same time, Porphyry agrees with Plutarch's position (*On the Cleverness of Animals* 964F) that humans may kill

savage animals without incurring a charge of injustice, although, Porphyry adds, it is always an act of injustice to consume any animal, savage or tame (III. 26).

One type of argument for a debt of justice toward non-human animals that occurs in Porphyry but which is almost entirely absent from Plutarch is the idea that injustice toward non-human animals is detrimental to the welfare of the human soul, an argument that seems at home in a treatise advocating a meat-free lifestyle, incumbent at least on the philosopher,⁴⁰ and whose presence may be explained by Porphyry's allegiance to Neoplatonism. Acts of injustice toward non-humans, not least the act of consuming them, hinders the Neoplatonic search for spiritual purity. Considerations of this sort may have sparked Porphyry's interest in Theophrastus' teachings on the nature of sacrificial offerings acceptable to the gods, which the earlier philosopher had specified as those easily obtained and cruelty-free, namely vegetable items.⁴¹ Porphyry may also be borrowing from the teachings of his Neoplatonist mentor Plotinus (205–ca. 269 ce), whom he does not mention by name in *On Abstinence from Animal Flesh*, who aimed for unity with the One through purity of the soul. It is difficult to come away from a study of Porphyry's arguments for justice toward non-human animals without some suspicion that he, like other Neoplatonists, was to a degree motivated by self-interest since the goal of this justice was the advancement of the human soul. Porphyry as much as admits this element of self-interest when he stresses that the "goal of becoming like God" (τοῦ ὁμοιοῦσθαι θεῷ ὄντος τέλους, III. 27) requires a state of blamelessness in all things. He who achieves the greatest degree of blamelessness is thus himself most like the divinity. The person who needs the fewest things is most likely to act with justice toward other creatures because he does not crave that which can trigger unjust behavior (III. 27). Clearly, abstinence from animal food promotes this simple life. The individual who has "established kinship with an animal" (τὴν οἰκείωσιν πεποιημένος πρὸς τὸ ζῷον, III. 26), that is, he who has come to realize his natural attachment to the remainder of animalkind, will not harm a non-human animal in any way, while he who acknowledges this kinship only with other human beings will not refrain from acts of injustice, including the consumption of animal flesh. Not surprisingly, Porphyry's conception of justice is heavily influenced by his preoccupation with restraint and avoidance of harm, as we would expect in an advocate of the meat-free lifestyle as a pathway to unity with God.

The ancient case against including non-human animals among those beings capable of possessing moral value arose, as we have seen above, from the contention that "man alone of animals has reason"

(Aristotle, *Politics* 1332b5–6), and that therefore non-human animals have no meaningful language, for “man alone of animals possesses speech” (*Politics* 1253a10–11). Non-human animals cannot vocalize or even possess any understanding of good and bad or just and unjust. To this initial contention, the Stoics added the ethical judgment that creatures thus devoid of reason and language have no kinship with human beings. Both Plutarch and Porphyry countered that, if reason and language confer moral value, non-human animals must be admitted to possess both and do not therefore differ from human beings in any morally significant ways. The position articulated by Aristotle and the Stoics therefore cannot stand.

Although the cases developed by Plutarch and Porphyry to refute the position of Aristotle that “man alone of animals has reason” and of the Stoics that non-human animals are not only irrational but because of that shortcoming fall outside the scope of human moral concern, consist predominantly of an attempt to disprove the assertion of irrationality in non-human species and thereby to remove any impediment to the inclusion of non-humans among those creatures that may be considered to have moral value, it is important to note that neither Plutarch nor Porphyry appears to have questioned the initial premise of their philosophical predecessors that reason-possession in itself confers moral value. Their strategy is to argue rather that non-human animals do in fact have the intellectual prerequisites that their philosophical rivals demand for entry into the company of morally significant beings. When we turn our attention to the status of the argument in modern philosophical and ethological discourse, we find both rather close approximations to the Stoic-Aristotelian view that “man alone of animals” is rational and that non-human animals are in consequence without moral standing, and at the same time appearances of the counterview that the possession of reason does not in fact “matter” in conferring moral standing since a creature’s moral worth arises from factors other than intellectual superiority, in some cases from factors that did not figure prominently if at all in ancient discussions of human–non-human relations.⁴² Arguments for the moral standing of non-human animals that focus on their capacity to suffer, to experience joy or grief or fear, or to look forward to future satisfactions in life, issues encountered only rarely in classical sources, find a place in current debate as examples of morally relevant (or irrelevant) considerations. Classical arguments for the moral value of human beings based on their supposedly unique rationality in the final analysis come off as monolithic when they highlight reason to the exclusion of such considerations as the emotional lives of non-human animals and equally so the emotional

lives of humans themselves and the attachments of affection and loyalty that humans may feel toward domestic and farm animals that share their lives, considerations whose importance was ignored by the Stoics but at least glimpsed by Plutarch in his scene of animals at slaughter (*On the Eating of Flesh* 994A). If reason-possession is the sole criterion for moral status, theories of human–non-human relations risk the charge of limited validity and shortsightedness.⁴³ At the same time, even some modern arguments for according moral standing to non-human animals that do not depend upon considerations of rationality nevertheless prove equally monolithic by relying on some other single criterion to the exclusion of others.

The Introduction to our study offered a preliminary overview of twentieth- and twenty-first-century debate on the relevance or irrelevance of reason-possession on moral standing in non-human animals, giving particular attention to the elaborate presentations of the case for “human exceptionalism,” a state of superior moral status granted by reason-possession, set forth in the work of bioethicist Wesley J. Smith and of philosopher Mortimer Adler, both of whom argue for a close connection between humankind’s superior reason and their consequent exalted moral status.⁴⁴ The chapters following the Introduction analyzed the ancient case for and against the position that “man alone of animals” possesses reason, and the first part of the present chapter showed how reason and moral standing were connected in ancient thought. The remaining portion of this chapter examines how specific ancient arguments and examples marshalled in defense of or in opposition to the position that “man alone of animals,” in his capacity as a rational being, possesses moral standing have resurfaced in late-twentieth- and twenty-first-century ethological and philosophical debate.⁴⁵

The epigraph to our chapter is derived from an influential treatise by ethical philosopher Peter Carruthers who sets out to prove that recent attempts to grant moral standing to non-human animals are misguided because they rely on false premises that fail to take into account the real and substantive differences between human and non-human animals.⁴⁶ The source of this erroneous view of the status of non-humans lies in a failure on the part of philosophers in the modern animal rights movement to take into account what Carruthers, in a variant on the “man alone of animals has reason” formula, terms “our uniqueness as rational agents.”⁴⁷ From this rational agency arises the human’s status as a moral being, for “it will turn out to be a sufficient condition for a creature to have moral standing that it should be a rational agent, and this is, broadly, a matter of its intelligence.”⁴⁸ Rational agency, in Carruthers’s view, enables a being to have beliefs,

preferences and desires, including desires about long-term outcomes that rely on planning, which necessarily presupposes a concept of futurity.⁴⁹ Agents must likewise be able to reflect abstractly on the circumstances of their own lives and to evaluate potential outcomes of their actions. Carruthers is willing to allow that all mammals have beliefs and desires, but he denies them the capacity to reflect on future outcomes in a manner that makes them rational agents.⁵⁰ In his view, “No animals count as rational agents, in the sense necessary to secure them direct rights.”⁵¹ Any rights that non-human animals can claim from human beings arise solely from their value to humans, a Kantian view of humankind’s “indirect duty” toward other species which in itself echoes the Stoic position that non-human animals “matter” only insofar as they serve human needs. For Carruthers, species membership is not a morally irrelevant consideration inasmuch as moral standing is tied to level of intelligence.

The human being’s unique status as a rational agent is generated in Carruthers’s view by “our distinctive possession of an innately structured language faculty.”⁵² The necessity of meaningful language to Carruthers’s view of rational agency and consequently to moral standing becomes clear in his contention that “a rational agent, for our purposes, must be a possible rational contractor.”⁵³ Carruthers’s assertion here that moral standing is dependent upon the capacity of beings to enter into “contracts” that depend on meaningful language reveals his allegiance to a contractualist stance on ethics, which, as Carruthers defines it, “views morality as the result of an imaginary contract between rational agents, who are agreeing upon rules to govern their subsequent behaviours.”⁵⁴ By definition, all varieties of contractualism must view morality as a “human construction,” created by humans to oversee their interpersonal relations.⁵⁵ To admit non-human species into such an ethical system would undermine it since non-humans cannot enter into contracts. Carruthers preempts any challenge that “marginal cases” of human beings and prelinguistic infants cannot enter into contracts by arguing that these classes of persons are born of rational agents and are entitled to all rights that all humans enjoy.⁵⁶

Although Carruthers scarcely alludes to ancient philosophy, virtually every element of his case for man’s uniqueness as a rational animal endowed with meaningful speech and thereby possessing moral value finds a parallel in Greek thought, for the contractualist view of morality which Carruthers espouses owes a profound debt to Stoic and Epicurean notions of “contract” or “covenant” formation as the origin of justice, and his take on the question of language in non-human animals, although informed by the findings of neurobiology

and ethology, strikingly parallels Stoic strictures on the significance of the vocalizations of non-human animals. Carruthers views all attempts to prove the intelligence of non-human animals, even in the case of primates and some other species that are widely agreed to display evidences of developed intelligence, as overly reliant on anthropomorphization and anecdote, not least in their claims of meaningful speech in other species. To the contractualist, it is clear that if moral standing depends on the possession of an articulate language that allows individuals to enter into contracts to respect the interests of others and to have their interests respected, no non-human species can be claimed to be linguistic to the degree of being capable of agreeing on the rules by which future conduct may be governed.⁵⁷ This is impossible for non-humans because they do not possess the syntax that would provide them with an understanding of futurity and conditionality that are prerequisites for the long-term planning that lies in the nature of contract formation. Carruthers seems to channel the Stoic view of language in his “man alone of animals” claim that “it may be our unique status as natural language users that underlies our uniqueness, amongst creatures on earth, as rational agents.”⁵⁸ Carruthers several times cites the linguist Noam Chomsky approvingly for his view that “man alone of animals” has language. In *Language and Problems of Knowledge*, for example, Chomsky asserts, “It is also worth bearing in mind that the language faculty does appear to be a unique human possession.”⁵⁹ Even the most rudimentary elements of human language, in Chomsky’s view, are beyond the capacities of the most intelligent non-human animals.

While contractualist ethical systems recall Stoicism in their emphasis on the linguistic uniqueness of human beings, one may detect in them even closer analogies to the Epicurean conception of “contract” or “covenant” (συνθήκη, *sunthēkē*). As we observed in our discussion of Epicurus’ somewhat cursory treatment of non-human animals and their exclusion from any covenant of justice with human beings (*Sovereign Maxims* XXXI–XXXIII),⁶⁰ such a covenant depends, for Epicurus, on the capacity of potential covenanters to “make agreements through mutual converse” (*Sovereign Maxims* XXXIII), which clearly requires meaningful language since contracting parties must vocalize their desire to be unharmed and their willingness to leave others unharmed. What is of particular interest here is that modern contractualist ethics and Epicurean conceptions of contract both assume that morality arises from “expediency” (τὸ συμφερόν, *to sumpheron*, *Sovereign Maxims* XXXI), and that therefore the justice that results from contract formation is by its nature both artificial and exclusionary since only rational, linguistic individuals, that is human

beings, may form contracts, which they undertake to do when it occurs to them how advantageous such non-aggression pacts will prove.

Carruthers's presentation of contractualist ethics suggests that a moral system based on the formation of contracts or covenants is by its very nature restricted to "man alone of animals." A grim "proof" of the truth of this conclusion is afforded by Carruthers himself who maintains that, to the contractualist, even the sufferings of non-human animals, although real, do not matter to the degree that the sufferings of human beings matter since non-human animals, with their limited intellectual faculties, cannot suffer to the degree that human beings can, and their lack of a concept of futurity makes it impossible for them to reflect on how long their sufferings may last or how intense they may become, in contrast to the situation of human beings. It is incumbent upon humans to refrain from inflicting unnecessary suffering on non-human animals only because cruelty is a negative quality in any person and indicates a bad character.⁶¹ The intense suffering inflicted on laboratory animals in the testing of cosmetics is thus morally objectionable because the intent of the research is ultimately frivolous, and it cannot be argued that countless humans enjoy the results of such testing while the number of non-human animals maimed is relatively small because the pleasures that humans derive from cosmetics are slight.⁶² The sufferings of animals used in the production of medicines for human beings might be acceptable, however, if it can be guaranteed that the benefits to humans are substantial. Carruthers further doubts that valid objections can be raised to hunting because in that practice, no rights are impinged upon in depriving non-humans of their lives.⁶³ Carruthers comes close here to the Stoic and Aristotelian position that non-human animals are intended for man's use and have no claim to make against such use because they lack moral standing. Even concern for the sufferings of other species is misguided, in the view of Carruthers, since such a concern shows "how people so readily come under the illusion . . . that animal suffering has moral standing, mattering for its own sake."⁶⁴ It is this consideration that prompted Carruthers to undertake the composition of his treatise because he expresses himself troubled that the animal rights movement of the late twentieth century, with its misguided overvaluation of the status of non-human animals, had engendered among some philosophers a "moral paralysis in face of the enormity of the world's human problems."⁶⁵ One could hardly imagine a more rigorously anthropocentric expression of the belief that "man alone of animals" matters than this statement.

Carruthers's presentation is not the most rigorous exposition in

contractualist ethics of a neo-Stoic belief in the intimate connection between language and moral value. In his work *What We Owe to Each Other*, philosopher Thomas M. Scanlon argues that a contract must be built on principles that no one of the contracting parties could reasonably reject since each party desires to act in such a manner that their actions are justified to other contractors.⁶⁶ Morality consists then in an arrangement among individuals to whom we would wish our actions to be justified and justifiable, an arrangement that depends upon language through which this justification may be articulated. The position of non-human animals in such a contract is obvious. “If those nonhuman animals who lack the capacity for language are therefore not capable of holding judgment-sensitive attitudes,” Scanlon explains, “then they will be outside the part of morality.”⁶⁷ Because non-human animals cannot have what Scanlon terms “rational aims,”⁶⁸ they cannot be accommodated in Scanlon’s version of contractualism, and they can be wronged only to the degree that the pain and distress that humans visit upon them cannot be justified. Scanlon addresses the question of marginal cases of human beings by arguing that since babies and mentally defective adult humans are “not separate creatures,”⁶⁹ they must always be included in the sphere of human morality. Non-human animals, in contrast, must be “separate creatures,” in Scanlon’s view, and, as non-rational, non-linguistic creatures, fall outside the scope of his understanding of contracts, as indeed the very title of his work, *What We Owe to Each Other*, seems to hint, for his “we” does not include non-human animals.

Our overview of contractualist arguments for the power of language possession in conferring moral standing serves to remind us of the validity of Mary Midgley’s observation that language remains, for human beings, “the key to our castle,” the most closely guarded guarantor of humankind’s claim of superiority over other animal species.⁷⁰ Yet it is not at all obvious to some thinkers why language should be so highly prized by humans, nor even why language should be considered, as it was by the Stoics and continues to be by their intellectual descendants the contractualists, an “all or nothing” proposition. In his work *Taking Animals Seriously: Mental Life and Moral Status*, philosopher David DeGrazia argues that language may be in fact “gradational,” and that non-human species may have beliefs and desires without necessarily employing sophisticated syntax to articulate them.⁷¹ Language, he maintains, represents various sorts of intellectual achievements, and the boundaries between what language may be in humans and in non-humans are not yet completely clear. DeGrazia’s conception of language as a gradational phenomenon

would seem to echo Plutarch's assertion that the language of non-human species, while not comprehensible to humans, is no less a language. Plutarch's animals at slaughter clearly express their desire for justice through vocalizations that humans incorrectly take for "inarticulate" (*anarthrous*, *On the Eating of Flesh* 994E), even if they employ utterances that do not appear to depend on syntax nor indeed on words at all. DeGrazia warns against assertions of the "man alone of animals" type when he observes, "Historically, it has served human narcissism to require language for high mental—or moral—honors and to set high standards for language."⁷²

Philosopher Gary Steiner still further downplays the role of language-possession in the granting of moral status when he argues that, while most animals may seem to lack the capacity for abstract thought, we must reject our dependence upon aspects of cognition as the guarantors of that status.⁷³ Steiner favors grounding our belief in moral status in a sentience model, in which the capacity to experience pleasure and pain is itself sufficient to ensure membership in the moral community. Sentience, in his view, is "a capacity shared by all beings for whom the struggle for life and flourishing *matter*."⁷⁴ A being does not need to be able to reflect on what matters and why in order to merit moral standing. Steiner raises a direct challenge to the Stoic understanding of *oikeiōsis* when he maintains, "Sentient beings, both human and nonhuman, have a kinship relation to one another that binds them together in a moral community in which neither can properly be said to be superior or inferior to the other."⁷⁵ He subsequently addresses the Stoics and their concept of *oikeiōsis* directly, condemning the "arch-anthropocentrism"⁷⁶ of the Stoics and charging human beings to rethink kinship in a way that stresses our common abilities rather than our differences. An animal, in his view, does not need language to be owed justice.⁷⁷ Hence, whether it is after all true, as the Stoics maintained, that man alone of animals has articulate language becomes irrelevant. The consequences for human action of our acknowledgement of our kinship with all life are for Steiner profound since all behaviors that cause violence to other species must be avoided. Veganism is incumbent upon human beings who can no longer justify their treatment of other species on claims of moral superiority or of the inferiority of the mental experiences of non-human animals.⁷⁸

Before Steiner, Richard Sorabji, arguing with specific reference to ancient thought, had come to a similar conclusion on the ultimate irrelevance of all claims of human uniqueness in assigning moral standing to man alone of animals. While one can point out any number of similarities, one must finally address the objection that

some huge and morally significant difference may after all exist. It may well be correct, he admits, that non-human animals do not have syntax, but this is for Sorabji morally irrelevant unless it can be proven that syntax is a prerequisite in animals for fear and depression.⁷⁹ Sorabji suggests that no one-dimensional ethical theory (and one suspects he may include Stoic *oikeiōsis* theory here) can help us to develop a satisfactory position on such ideas as the moral standing of non-humans, but he considers it incumbent upon human beings to discover what differences between animal species are after all relevant. “*Whatever* protects our fellow humans,” he observes, “(and I have no theory to tell me what does), the same will protect animals, to the *extent* that they do not differ in morally relevant ways.”⁸⁰ For Sorabji, claims of the “man alone of animals” type do not advance our understanding of what may or may not be relevant differences between the species.

The thinkers examined above illustrate the fact that, on the issue of the potential interconnection between mental activity and moral status in non-human species, modern philosophy provides as broad a spectrum of viewpoints as may be detected in Greek thinkers from Aristotle through Porphyry. Philosophers still fight ancient battles, in remarkably similar terms and with surprisingly similar conclusions. It is especially noteworthy that thinkers from Carruthers through Steiner formulate positions that reflect either an implicit engagement with and acceptance of Stoic ideas, as in the case of Carruthers whose vision of moral standing is predicated on the assumption that man alone of animals is rational, or an explicit rejection of Stoic claims, as in the case of Steiner who demands a reconsideration of the Stoic concept of *oikeiōsis* that will enfold non-human animals in the embrace of kinship with human beings. The issues of language possession and of the potential debt of justice toward non-human species are as much at the forefront in modern thought as in the debates of the Stoics and Plutarch. Reason manifesting itself as meaningful language is still seen as either paramount or irrelevant to the moral standing of non-human animals, and is still viewed as either essential to or separate from any debt of justice toward other species. Whether man alone of animals possesses reason seems no less contentious an issue in the twenty-first century than in the time of Chrysippus.

While Carruthers and Steiner espouse diametrically opposite views on the part played by reason in determining a being’s potential moral standing, both philosophers, in common with the majority of the other authorities examined above, arrive at their positions almost entirely through rigorous philosophical analysis, with an occasional appeal to

common sense on both sides of the debate, but with minimal engagement with the findings of the life sciences relating to the intellectual capacities of non-humans and to the bearing that this issue may have on the question of human obligations to non-human animals. Only DeGrazia takes into account the contributions of biology, neuroscience and related scientific disciplines toward our understanding of the interconnectedness of rationality and morality.⁸¹ Research by animal behavioral scientists in recent decades into issues including consciousness in non-human species, the experience of pleasure and pain in non-humans, and the nature and scope of the linguistic capacities of non-human animals, have repeatedly corroborated the conclusion of a number of philosophers of cognition that there may be ample justification for a reevaluation of human assumptions on the moral standing of other species. The findings of neuroscience and of other branches of the life sciences have in some cases strengthened the contention of these philosophers that, if mental capacity and moral standing are in fact interconnected, we have no compelling reason to deny non-humans entry into the class of morally significant beings solely on the basis of questionable claims of man's uniqueness as a rational animal. Perhaps, as some ethologists contend, it will emerge that no intellectual capacity is the province of man alone of animals. As in the case with philosophers, however, we find a broad range of views among ethologists as to how we are to evaluate the results of scientific observation of the behaviors of non-human animals as indicators of the mental capacities and moral dimensions of other species, and some ethologists remain skeptical of the generous view of the mental capacities of other species that others champion.

Just as philosophers have tended to propound their views on the intellectual and ethical dimensions of non-humans with limited reference to the findings of natural science, so have some scientists failed to take into account the insights of philosophy. A notable exception is biologist and philosopher Rosemary Rodd, who characterizes her work *Biology, Ethics and Animals* as a "philosophical examination of the significance of theories and factual discoveries from the life sciences for the development of ideas about the moral standing of animals."⁸² Rodd challenges the practice of highlighting human achievements as justification for denying rights to non-human animals, the approach reflected in the catalogues of uniquely human attainments and claims of "human exceptionalism" seen in the works of Adler and Smith,⁸³ on the grounds that the practice is spurious, not merely because such unique human achievements are relatively recent and take no account of the millennia during which human beings hardly differed from other species in their cultural attainments, but

also because “the staggering achievements of modern humans are social phenomena.”⁸⁴ Since many human achievements, including agriculture, technology and medicine, were achieved through extensive use of non-human animals as tools, humans must regard other species as participants in those achievements, not as separate from them. Non-human animals, Rodd maintains, must not be seen as mere “tools” on the road to human progress and eventual supremacy. Rodd’s analysis strikes at the heart of the view, espoused by Aristotle and the Stoics among other ancients, that non-human animals are intended solely for man’s use and benefit and have no intrinsic value other than this, nor indeed any justifiable interest in or claim to their own lives.

The starting point for Rodd’s investigation into the potential interrelation between mental faculties and moral standing in animal species differs considerably from that of many philosophers of cognition in that she focuses on the question of how theories of biology that seek to elucidate human and non-human animal behavior have influenced the attitudes of biologists on the question of the moral status of non-humans.⁸⁵ Assertions by biologists that non-human animals are devoid of conscious mental states have led some of those biologists who hold that view to deny any moral standing to those animals. In contrast to some of her biologist colleagues, Rodd sees a direct correlation between such mental states as non-human species may experience and an obligation on the part of human beings to accord moral standing to those species that experience them. In her view, suffering and joy have moral value, no matter what species experiences those states. She considers it mistaken to claim, as have some biologists, that only human beings, with their highly developed consciousness, can care about their continued existence, since, if one were to accept that premise, humans might justly be viewed as being equally oblivious to their own continued existence while asleep. For Rodd, what she calls “continuity of consciousness” is of paramount importance, and she considers it wrong to kill a creature with even limited mental capacities because doing so eradicates this continuity.⁸⁶ Biology has shown that rats will jump at the sight of a light that warns of an impending electric shock, while monkeys will attempt to stay awake to press levers that allow them to avoid shocks.⁸⁷ Such animal species clearly express a preference not to suffer, and since they have done nothing to warrant their suffering, human beings, who normally view it as wrong to inflict suffering on the innocent, must abhor such unjust treatment of other sentient creatures, for experimentation on the innocent serves only to deaden humankind’s moral sensibilities and to deny the bond that exists

between conscious creatures, whatever the level of their consciousness may be.⁸⁸ In the final analysis, Rodd, employing the findings of the biological sciences, comes rather close to Steiner's "sentience model," in which the capacity for pain and pleasure in a being are guarantors of moral standing. Indeed, Rodd considers it incontestable that knowledge on the part of human beings about the mental states of other species can lead us to a recognition of our obligations toward other species because pain is a negative and has moral consequences for human action.⁸⁹

Rodd, the biologist, is cautious in her acceptance of evidence of linguistic capacities in non-human species, feeling that some experiments in which non-human animals have apparently been taught to use American Sign Language may have been tainted by unconscious "cueing" by their human teachers, but she maintains that the non-linguistic communication modes that some species employ cannot be dismissed as indicators of moral standing in those species. Some non-human animals can unquestionably transfer information, as in the case of bee dances or of the varied grunts of vervet monkeys that communicate information to their conspecifics about potential dangers in their surroundings, without the use of any articulate speech, and Rodd insists that we must not deny such phenomena may have some ethical significance.⁹⁰ Admittedly, such examples of communication hardly rise to the level of the sophisticated information transfer characteristic of human languages, and Rodd acknowledges that the sorts of communication involved in such information transfers as bee dances and vervet warning grunts cannot be manipulated and varied by the species using them to impart any other sort of information than the sort for which those avenues of communication are primarily intended. That is, these sorts of information transfer show no evidence of syntactical flexibility that would allow, as do human languages, for varied sorts of communication. It may even be the case that bees have no awareness that they are transferring information through their dances, and that their hive-mates have no capacity to ignore misinformation supplied to them by an experimenter about the location of a food source. Rodd comes away from such biological experimentation somewhat wary of attributing any intellectual significance to apparent examples of linguistic capacities in non-humans, but she is convinced that other species are capable of at least some symbolic representation of the external world.⁹¹

Even if we may never learn with certitude whether other species communicate with anything near the level of sophistication provided to human beings by their languages, Rodd views it as likely that, at

the very least, other animal species have an interest in staying alive and in avoiding pain. In this view, human beings must seek to reduce the sufferings of other species even if the interests of human beings, as intellectually superior creatures, may be allowed to take precedence over those of other animals. Rodd addresses earlier philosophers, including the Stoics whom she does not specifically name, in charging that humans have been reluctant to view other animals as potential partners in conscious life because to do so entails feelings of guilt and responsibility.⁹² Hence we have allowed ourselves to view other species as worthless and soulless. Rodd finally sides with those who view non-human animals as beings whose lives matter to them and should therefore matter to us, even if their intellectual faculties are minimal, because the continuity of life itself matters. Whether “man alone of animals” is rational and the unique possessor of articulate speech is in the final analysis of minimal concern in Rodd’s analysis, since for her moral status is not predicated on demonstrated intellectual endowments but upon the capacity to feel pain and to experience pleasure, both of which even the Stoics were willing to allow to non-human animals, although they stopped short of contemplating the moral implications of these capacities as potential indicators of humankind’s kinship with all animal life.

A considerably more cautious evaluation of the potential bearing of ethological research into the mental states of non-human animals on the question of the moral standing on other species is observable in the work on psychologist and neuroscientist Marc D. Hauser, who maintains all animals possess what he terms “mental toolkits”⁹³ that allow them to navigate their lives successfully, but cautions that we must be cautious in attributing moral significance to the behaviors of non-humans. While some species may perform acts that appear to human beings to demonstrate, for example, altruism or selfishness, we must be wary of reading moral content into such behaviors because other species may not *intend* to help or harm their conspecifics in the performance of these actions. They may therefore have no understanding of the potential consequences of their actions.⁹⁴ He doubts that non-human animals are aware of the moral content of their actions on the grounds that other species cannot differentiate between the consequences that alternative courses of actions might entail. Hauser would seem to be less willing to include Rodd’s emphasis on the significance of animal pain or pleasure in any picture of the moral status of non-human animals. While he by no means maintains that non-human animals are devoid of intellectual faculties that are, in at least some species, relatively sophisticated, and he allows that some animals experience certain emotional states, Hauser

seems in the final analysis reluctant to reject the position that humankind occupies a special place in animal creation granted to man alone of animals by his superior intellectual endowments.

Our survey of philosophers and animal behavioral scientists who have in recent decades addressed the issue of humankind's intellectual and moral position vis-à-vis their fellow-animals suggests that the questions asked by the Greeks and the forms in which those questions were posed by them are as valid and timely today as they were in antiquity, with some thinkers convinced that the superior mental endowments of humans validate a claim of human exceptionalism, while others maintain that superiority of intellect, as an indicator of human moral primacy, is a criterion now obsolete and irrelevant, as boundaries between humans and other animals blur in light of our greater willingness to acknowledge our animality. While humankind's rationality has since Greek antiquity been the cornerstone of their claim of human exceptionalism, assertions of the superior anatomical features of the human being have complemented the much more elaborate and multidimensional case for humans' intellectual superiority and have been employed to argue that man alone of animals has succeeded in linking his intellectual and his physiological gifts in such a way as to enable him to reach the pinnacle of civilization through conquest and control of his environment. The ancient and modern case for the (perhaps rather counterintuitive) claim of humankind's unique physiological advantages, and the opposing case that, at least in their anatomical make-up, non-human animals are superior to human beings, is addressed in the following chapter.

Notes

- 1 Peter Carruthers, *The Animals Issue: Moral Theory in Practice* © Cambridge University Press 1992 xi, reprinted with permission.
- 2 On the Stoic doctrine that language possession confers moral value to humans, see [Chapter 4](#), pp. 55–59, and below, pp. 81–82. For the importance of the capacity for choice in Stoic ethics, see [Chapter 4](#), pp. 55–56, and below, pp. 80–81.
- 3 Sorabji, *Animal Minds* 2.
- 4 Sorabji, *Animal Minds* 2.
- 5 For discussion of these passages in the context of Aristotle's denial of rationality to non-human animals, see [Chapter 4](#), p. 49. The pre-Socratic Democritus taught (DK fr. 257–258) that human beings may kill with impunity animals that act unjustly, and that indeed humans have the duty to do so. In the view of Democritus, the actions of animals are voluntary and they may be held responsible for them.

- 6 Steiner, *Anthropocentrism and Its Discontents* 77, observes that, in Stoic moral philosophy, “human rationality is seized upon as the basis for a categorical claim to the moral superiority of human beings over animals.” Osborne, *Dumb Animals and Dead Philosophers* 64, notes that, in contrast to the Stoics, “Aristotle was actually rather less explicit about whether humans were distinctive for being rational.”
- 7 Gisela Striker, “The Role of Oikeiōsis in Stoic Ethics,” *OSAPh* 1 (1983) 146, notes that the concept of *oikeiōsis* has been judged by some critics to be the centerpiece of the Stoic ethical system, while others consider it one of a number of contributing factors in that school’s ethical philosophy.
- 8 S. G. Pembroke, “Oikeiōsis,” in A. A. Long, ed., *Problems in Stoicism* (London: Athlone Press, 1971) 114. Pembroke notes here that the term has “a persistent reputation for being impossible to translate.” Bibliography on *oikeiōsis* is extensive. In addition to the valuable studies of Pembroke and Striker, especially to be recommended is Gretchen Reydam-Schils, “Human Bonding and Oikeiōsis in Roman Stoicism,” *OSAPh* 22 (2002) 221–251, which discusses how the concept was understood by Cicero and Seneca.
- 9 Striker 145.
- 10 For a useful survey of antecedents of ideas included in the Stoic concept of *oikeiōsis*, see Sorabji, *Animal Minds* 131–133. See also above, [Chapter 2](#), pp. 12–15, on pre-Socratic notions of “fellowship” among animal species. Troels Engberg-Pedersen, *The Stoic Theory of Oikeiōsis: Moral Development and Social Interaction in Early Stoic Philosophy* (Aarhus: University of Aarhus Press, 1990) 16–35, demonstrates how Aristotle’s views on the part played in human life by the pursuit of happiness (*eudaimonia*) influenced Stoic ideas on *oikeiōsis* as human beings reach out to their fellow-humans as a source of happiness arising from the recognition of shared humanity. Sorabji, *Animal Minds* 130–131 makes the important point that, while the doctrine of *oikeiōsis* is most closely associated with Stoicism, elements of the doctrine may be traced in other schools of philosophy, in particular in the thought of certain Epicureans including Epicurus’ successor Hermarchus.
- 11 This statement, if genuinely Theophrastean, may derive from his lost treatise *On Piety* or from the lost treatise that Diogenes Laertius (V. 49) calls *On the Character and Intelligence of Animals*. On the latter treatise, see above, [Chapter 4n19](#). C. O. Brink, “οἰκείωσις and οἰκειότης: Theophrastus and Zeno on Nature in Moral Theory,” *Phronesis* 1 (1955–1956) 123–145, sets forth arguments for and against the position that the doctrine of *oikeiōsis* is to be considered Theophrastean rather than Stoic in origin. Brink cites Porphyry’s discussion of Theophrastus on kinship, but he argues that, for Theophrastus, the notion of kinship should be viewed as primarily a biological concept, with some elements of ethics included, and that Theophrastus was not overly concerned with eliminating the border between biology and morality that Aristotle had posited. Theophrastean elements in the doctrine of *oikeiōsis* as it came to be articulated by the Stoics are discussed as well in Francesco Becchi, “Biopsicologia e Giustizia in Teofrasto e Plutarco,” *Prometheus* 27 (2001) 119–135.
- 12 This definition and the technical vocabulary entailed are found in Alexander of Aphrodisias, *On the Soul* (= *SVF* III. 183).
- 13 The Stoics seem to have disagreed on the “age of reason.” Aetius, *Placita* IV. 11 (= *SVF* II. 83) places the attainment of reason in Stoic teaching at the age of seven, while Iamblichus, *On the Soul*, as reported in Stobaeus, *Eclogae* I. 48 (= *SVF* I. 149) and Diogenes Laertius VII. 55, in his life of Zeno, place this age at

fourteen.

- 14 See [Chapter 4](#), p. 54.
- 15 See Sorabji, *Animal Minds* 112, “It is, I think, the Stoics who first made moral responsibility depend upon reason.” He offers (108–112) a useful discussion of arguments advanced in recent scholarship on the troubled question of Aristotle’s position on the connection between rationality and moral responsibility.
- 16 For a more detailed discussion of the Stoic position on the part played by “impulse” in the actions of non-human animals, with specific reference to how impulse substituted for rational conduct in non-humans, see [Chapter 4](#), pp. 56–57.
- 17 See above, pp. 79–80.
- 18 See above, pp. 77–78.
- 19 See [Chapter 4](#), pp. 54–55.
- 20 On the primacy of articulate language in the Epicurean theory of justice, see [Chapter 4](#), pp. 000–000. In the course of his discussion of anti-vegetarian argumentation in ancient philosophical sects in the first book of *On Abstinence from Animal Flesh*, Porphyry offers a clear account of the Epicurean position on the connection between rationality and justice, noting that Epicurus had declared a relationship of justice to be “among those things which are impossible to share with those animals that are not rational” (τῶν ἀμηνχάνων ἢν κοινωνῆσαι νόμου τὰ μὴ δεχόμενα τῶν ζώων λόγον, I. 12).
- 21 In his commentary to this final section of Philo’s *On Animals*, Terian 206 observes, “The moral and juridical relationship between man and animals appealed for in Alexander’s discourse . . . is rejected in these concluding remarks of Philo. . . .” On Philo, see [Chapter 4](#), pp. 55–56.
- 22 On Hesiod’s view of the origin of justice in humankind, see [Chapter 2](#), pp. 11–12.
- 23 Porphyry informs us that Theophrastus considered it possible for human beings to act unjustly toward non-human animals when they sacrificed them to the gods since they thereby cause them harm by depriving them of their lives (*On Abstinence from Animal Flesh* II. 12). Sorabji, *Animal Minds* 176 notes that Theophrastus’ assertions that it is unjust to deprive non-human animals of their lives anticipates the so-called “harm as deprivation” arguments associated with some modern animal rights philosophers, but he does not cite any modern philosopher in whom this argument may be identified. On the relationship between Theophrastus’ view and the so-called “harm as deprivation” argument as developed by philosopher Tom Regan, see Stephen T. Newmyer, *Animals, Rights and Reason in Plutarch and Modern Ethics* 22.
- 24 On Plutarch and Porphyry on the intellectual endowments of non-human species, see [Chapter 4](#), pp. 63–68. The connection between intellect and morality in Plutarch’s thought is treated in detail in Stephen T. Newmyer, “Plutarch on Justice toward Animals: Ancient Insights on a Modern Debate,” *Scholia: Natal Studies in Classical Antiquity* N. S. 1 (1992) 38–54 and in *Animals, Rights and Reason in Plutarch and Modern Ethics* 48–65.
- 25 In Plutarch’s dialogue *Gryllus* or *Whether Beasts Are Rational*, the philosophical pig Gryllus promises (986F) to lecture Odysseus on the capacity for justice in non-human animals, as he proceeds to outline the capacity for courage, wisdom and temperance, the other so-called Cardinal Virtues of classical antiquity, in non-humans, but the part of the treatise that contained the discussion of justice is lost. Gryllus does, however, assert (987F) that non-human animals have a

greater natural capacity for virtuous behavior than do humans.

- 26 See Chapter 4n80 on the use and misuse of anecdote and anthropomorphization in modern ethological literature.
- 27 On the presence of emotions in non-human animals, see below, [Chapter 7](#).
- 28 On Stoic teaching on the inclusion of pre-rational human beings in the covenant of *oikeiōsis*, see above, p. 79.
- 29 In his treatise *De amore prolis* (*On the Love of Offspring*), Plutarch offers a take on the interrelation between parental love and the origin of justice that seems in conflict with the position that he sets forth in *On the Cleverness of Animals*. While he maintains in *On the Love of Offspring* that nature has implanted the love of offspring even in “irrational animals” (τοῖς ἀλόγοις, 495B), this love is said in that passage to be “incomplete and insufficient” (ἀτελὲς καὶ οὐ διαρκές, 495B) toward the production of justice in the young. In denying reason to non-human animals and in maintaining that the love of offspring does not lead to a developed sense of justice, Plutarch appears to contradict the position set forth in *On the Cleverness of Animals*. Scholars have explained away this apparent contradiction by arguing that Plutarch’s intention in *On the Love of Offspring* is not so much to belittle the intellectual faculties of non-human animals as to criticize the moral failings of human beings who have the natural ability to live in accord with reason but often choose instead to pursue vice, whereas non-human species, with inferior capacities, do not practice vice or live contrary to their natures. On this contested passage, see Newmyer, *Animals, Rights and Reason in Plutarch* 61–62 and 123n52.
- 30 In his life of Zeno, Diogenes Laertius (VII. 129) quotes this Stoic axiom in language almost identical to its form here in Plutarch. On this axiom in Diogenes, see above, p. 80.
- 31 Plutarch had made this same point more directly in his account (*On the Cleverness of Animals* 973A) of how such birds as starlings and jays, in mastering human words and teaching them to their conspecifics, indicate that they possess both “uttered reason” (προφορικοῦ λόγου, 973A) and an “articulate voice” (φωνῆς ἐνῶπρου, 973A). On this passage in Plutarch, see above, pp. 65–66.
- 32 Plutarch’s anticipation of the so-called harm as deprivation argument in his scene of animals at slaughter is discussed in Stephen T. Newmyer, “Plutarch on the Moral Grounds of Vegetarianism,” *CO* (1995) 42–43 and in *Animals, Rights and Reason in Plutarch and Modern Ethics* 94.
- 33 On *Politics* 1253a11–19 in the context of Aristotle’s denial of a relation of justice between the species, see also above, p. 78.
- 34 Terian 94n1 observes that the Armenian text here allows the translation “have a sense of fairness” to characterize the exercise of just behavior in animals. The topic of gratitude in non-human animals is treated in August Marx, *Griechische Märchen von Dankbaren Tieren und Verwandtes* (Stuttgart: Kohlhammer, 1889), which, by its title, suggests that tales of this type are found more frequently in fables than in literature with any pretensions to scientific weight. Storks are treated at some length (50–55) in Marx. Sorabji, *Animal Minds* 119–121 discusses the topic of “justice exercised by irrational animals,” noting the rarity of this idea in classical sources and citing examples predominantly from Plutarch.
- 35 Steven D. Smith, *Man and Animal in Severan Rome: The Literary Imagination of Claudius Aelianus* (Cambridge: Cambridge University Press, 2014) 203–207 discusses ancient accounts of friendships between youths and dolphins, calling attention to the erotic undertones that such accounts often contain. He observes

(204n47) that Plutarch denies any possibility of such a relationship in the anecdote related at *On the Cleverness of Animals* 984E. Even the sober Aristotle, commenting on the gentleness and tameness of dolphins, mentions that the “loves and longings for boys” (πρὸς παῖδας ἔρωτες καὶ ἐπιθυμίαι, *History of Animals* 631a9–10) that dolphins exhibit have been commented on in certain parts of the Greek world.

- 36 Plutarch’s version of the rescue of Arion in the *Banquet of the Seven Sages* is discussed in detail in Stephen T. Newmyer, “Animal *Philanthropia* in the *Convivium Septem Sapientium*,” in José Ribiero Ferreira, Delfim Leão, Manuel Tröster and Paula Barata Dias, *Symposion and Philanthropia in Plutarch* (Coimbra: Centro de Estudos Clássicos e Humanísticos da Universidade de Coimbra, 2009) 497–507. Luc van der Stockt, “Plutarch and Dolphins: Love Is All You Need,” in J. Boulogne, *Les Grecs de l’Antiquité: Le Cas Remarquable de Plutarch* (Lille: Collection UL3, 2005) 43–61, argues that human-friendly dolphins are used by Plutarch as examples of how the justice and benevolence of god toward man are manifested in the cosmos. He thus views dolphins as instruments of divine justice rather than as practitioners of justice themselves.
- 37 The sort of helping behaviors that Herodotus, Pliny and Plutarch describe in the case of the rescue of Arion are early examples of rescues of humans by non-human animals at sea that are frequently commented on by ethologists. Biologist and ethologist Frans de Waal, *The Age of Empathy: Nature’s Lessons for a Kinder Society* (New York: Harmony Books, 2009) 128, notes, “Reports of leviathan care and assistance go back to the ancient Greeks,” and he provides several modern examples of rescues of humans by dolphins when the humans were under threat by sharks and of rescues of fellow-dolphins when they were injured.
- 38 Porphyry’s similarities to Plutarch are to some extent accounted for by the fact that the later philosopher incorporates virtually verbatim the text of *On the Cleverness of Animals* 959E–963F in the course of his argument for the presence of rationality in non-human animals at *On Abstinence from Animal Flesh* III. 20–24. On Porphyry’s use of Plutarch in the development of his case for rationality in non-humans, see [Chapter 4](#), pp. 67–68.
- 39 Porphyry’s argument that humans act irrationally if they do not hesitate to extend justice to those classes of humans who are dangerous and hostile to us while we withhold it from those non-human animals that provide us with affection and services anticipates what is called in modern animal rights philosophy the Argument from Marginal Cases, which maintains that humans cannot refuse to respect the interests of non-human animals whose intellectual capacities may exceed those of some humans of reduced capacities. As Porphyry expresses the idea, non-human animals that are possessed of perception are as closely akin to human beings as are all classes of humans, and one cannot refuse justice to them if one would not refuse it to those reduced classes of humans. Porphyry’s anticipation of the Argument from Marginal Cases has been analyzed by Daniel A. Dombrowski, with specific reference to his defense of the meatfree lifestyle, in “Vegetarianism and the Argument from Marginal Cases in Porphyry,” *JHI* 45 (1984) 141–143 and in “Porphyry and Vegetarianism: A Contemporary Philosophical Approach,” *ANRW* II, 36, 2 (1987) 774–791. Dombrowski analyzes appearances of the Argument from Marginal Cases in a number of contemporary ethical philosophers in *Babies and Beasts: The Argument from Marginal Cases* (Urbana and Chicago: University of Illinois Press, 1997). Ancient philosophers are scarcely touched on in that work.
- 40 Porphyry (*On Abstinence from Animal Flesh* II. 3) says that his case for

abstention is directed not to all persons but specifically to philosophers, especially to those most interested in imitating the divine. Plutarch (*The Eating of Flesh* 995D–996A) observes that eating meat may weigh down the soul, but this argument does not figure otherwise in his plea for vegetarianism.

- 41 On Porphyry on Theophrastus, see above, p. 89 and n11, above.
- 42 A helpful if admittedly sketchy survey of assertions of humankind's intellectual superiority and moral hegemony over the remainder of animal creation from the post-classical period into the twentieth century that champion the idea that humankind is the center of the created world is found in Lau 104–124. See also Goodale, *passim*.
- 43 Sorabji, *Animal Minds* 208–219 has a valuable discussion of what he terms the “one-dimensionality” of a number of prominent contemporary ethical theories concerning human-non-human relations.
- 44 See Introduction, pp. 1–4. The degree to which the arguments of Smith and Adler echo classical arguments for the assertion that “man alone of animals” possesses reason is treated in Ch. 4, pp. 59–62.
- 45 I do not intend to suggest that current thinkers who make use of arguments encountered in classical sources which we have discussed in this study are necessarily aware of their appearance in ancient texts or have consciously and intentionally availed themselves of those arguments after study of Greek and Roman texts. I would argue rather that the arguments advanced in modern scientific and philosophical debate on the intellectual and ethical dimensions of non-human animals are at times anticipated and foreshadowed in Greek and Roman texts, and reappear, often in more complex and sophisticated formulations, in twentieth- and twenty-first-century thinkers. It is generally impossible to establish with certainty that a given writer has any knowledge of classical precedents of ideas that he or she advances. I think it unlikely, in any case, that Wesley J. Smith's elaborate case for “human exceptionalism” owes any significant debt to ancient thought. On Smith and ancient precedents, see Introduction, p. 7.
- 46 Peter Carruthers, *The Animals Issue: Moral Theory in Practice* (Cambridge: Cambridge University Press, 1992).
- 47 Carruthers 143.
- 48 Carruthers 54.
- 49 Carruthers 134–137.
- 50 Carruthers 133–134.
- 51 Carruthers 144.
- 52 Carruthers 143.
- 53 Carruthers 141.
- 54 Carruthers 35. Some ethicists draw a distinction between what is termed contractualism and what is termed contractarianism. In the view of those philosophers, while both positions hold that morality resides in rational agreement, contractualism depends on a system of equal respect of the interests of the contractors, while contractarianism negotiates from a position of self-interest. See C. W. Morris, “Contractarianism,” in *Encyclopedia of Ethics I*, ed. by L. C. Becker and C. B. Baker (New York and London: Routledge, 2001) 320–325.
- 55 Carruthers 35.
- 56 Carruthers 111–112. Not all contractualist ethicists agree that “marginal cases” of human beings can be accommodated in a contractualist view of moral

standing. David Gauthier, *Morals by Agreement* (Oxford: Clarendon Press, 1986) 268, maintains, “Animals, the unborn, the congenitally handicapped and defective, fall outside the pale of a morality tied to mutuality.”

- 57 Carruthers 133.
- 58 Carruthers 144.
- 59 Noam Chomsky, *Language and Problems of Knowledge* (Cambridge: MIT Press, 2001) 37.
- 60 See [Chapter 4](#), p. 57.
- 61 Carruthers 154.
- 62 Carruthers 64.
- 63 Carruthers 166.
- 64 Carruthers 157.
- 65 Carruthers xii.
- 66 Thomas M. Scanlon, *What We Owe to Each Other* (Cambridge: Harvard University Press, 1998) 7.
- 67 Scanlon 180.
- 68 Scanlon 184.
- 69 Scanlon 185.
- 70 Midgley xxiv. On Midgley, see above, Introduction, p. 6–7.
- 71 David DeGrazia, *Taking Animals Seriously: Mental Life and Moral Status* (New York: Cambridge University Press, 1996) 198.
- 72 DeGrazia 198. The contractualist desire to withhold moral standing from non-human species is attacked in DeGrazia 53–56, with special reference to the theories of Carruthers.
- 73 Gary Steiner, *Animals and the Moral Community* x.
- 74 Steiner, *Animals and the Moral Community* xi.
- 75 Steiner, *Animals and the Moral Community* xii.
- 76 Steiner, *Animals and the Moral Community* 137.
- 77 Steiner, *Animals and the Moral Community* 118.
- 78 Steiner, *Animals and the Moral Community* 163.
- 79 Sorabji, *Animal Minds* 217.
- 80 Sorabji, *Animal Minds* 217.
- 81 DeGrazia 172–198 critiques the work of ethologists including Marian Stamp Dawkins and Donald R. Griffin and discusses, with tentative approval of some of the results obtained by such research, experimentation into the linguistic capacities of non-humans.
- 82 Rosemary Rodd, *Biology, Ethics and Animals* (Oxford: Clarendon Press, 1992) 1.
- 83 On Adler and Smith, see above, Introduction, p. 1–4, and [Chapter 4](#), pp. 59–62. Philosopher and professor of physiology and biophysics Bernard E. Rollin, who agrees with Rodd in questioning the premise that rationality in itself confers moral standing, articulates the question in an amusing yet compelling manner when he observes, with a clear nod to “man alone of animals” claims, in his work *Animal Rights and Human Morality* (Buffalo: Prometheus Books, 1992) 2, “Certainly man is the only creature who grates Parmesan cheese over his food, wears panty hose, pays taxes, and joins health clubs. There are innumerable differences that obtain between people and animals. The question is, do these

differences serve to justify a moral difference?” Rollin’s brief and humorous “catalogue” of achievements unique to humans parodies Adler’s and Smith’s elaborate catalogues of achievements that belong to “man alone of animals,” but those thinkers might well conclude that even the frivolous evidences of human primacy that Rollin cites argue for the moral superiority of human beings over the remainder of animal creation since they portray humans as the essential manipulator of their own *technē*, their reason-driven technological prowess, and view humans as active participants in a complex and cultured society that is the product of their rationality.

84 Rodd 251.

85 Rodd 9.

86 Rodd 129.

87 Rodd 131.

88 Rodd 186.

89 Rodd 2. Rodd’s emphasis on the importance of taking into account the pain and pleasures of non-human animals illustrates her opposition to the now largely obsolete positions of so-called behaviorist biologists who were wary of reading too much into apparent indications of suffering on the part of non-human species and of making sweeping claims for mental activity that might be seen as triggering such suffering. For her critique of what she calls “the New Cartesians,” see Rodd 42–73.

90 Rodd 74–84.

91 Rodd 100.

92 Rodd 250.

93 Marc D. Hauser, *Wild Minds: What Animals Really Think* (New York: Henry Holt, 2000) xv.

94 Hauser 141–172 discusses the issue of intention in animals at length in the course of his analysis of deceit in non-human species. Hauser is very reluctant to read too much into animal actions since scientists who observe such actions must after all do so as human beings. We can never know for sure that other species perceive the world as we do or indeed as we think they do. Hence, he is critical of the work of influential earlier ethologist Donald R. Griffin for reading too much into the behaviors of non-human animals and for seeing them as analogous to the behaviors of human beings. See Hauser 255–256 on Griffin.

6 Body Image

Physiology and the Rise of Civilization

Man alone of all animals has been given hands, implements appropriate to an intelligent animal. Of animals that go about on foot, man alone is bipedal and upright, because he was given hands.

(Galen, *On the Usefulness of Bodily Parts* III. 1)

Compared with the bold and elaborately developed case for man's unique intellectual gifts that pervaded ancient philosophical and scientific discourse and continues to enjoy a vigorous afterlife in twenty-first-century debate on human-animal interactions and obligations, Greek and Roman authors demonstrate a somewhat more cautious and ambivalent attitude regarding man's physiology, perhaps suggested to them by eye-witness observation and common sense, although, as we observed in our preliminary examination of classic discussions of a number of human anatomical features in Xenophon, the Sophists and Plato's *Pythagoras*, claims that human beings are anatomically blessed above other animals are by no means difficult to isolate in classical sources.¹ In some cases, however, ancient authors ultimately resort to claims of man's superior intellect to compensate for, eclipse and argue away any concessions of anatomical advantage in non-human species that could not conveniently be ignored. While classical literature is well supplied with acknowledgments that man cannot compete against the claws, beaks, fangs and fur that protect other species, and that non-human animals, unlike man, are capable from birth of taking full advantage of such accoutrements without need of instruction,² we encounter as well the idea that man has been given some gifts that compensate for other anatomical shortcomings and that indeed, because of their superb utility, make man after all physiologically superior to other animals. Aristotle (*Parts of Animals* 687a23–687b2) countered the argument that non-human animals have the advantage over human beings in their natural armaments and their defensive body coverings by arguing that man alone can change his weaponry as needed, making him in fact far more versatile

and effective in self-defense than are other animal species.³

The uniquely human anatomical features most consistently cited by ancient authors as indicators of the superiority of the human body to that of any other species are upright posture and hands, the latter of which is alluded to in the passage of Aristotle just referenced, while both are singled out in the pronouncement by Galen that forms the epigraph of our chapter.⁴ Hands were regarded as a gift that fostered human beings' conquest of their physical environment and guaranteed their rise to civilization, while upright posture enabled humans to share in divinity by allowing them to contemplate the heavens and to recognize their likeness to the gods. These gifts by themselves were often viewed as compensating for all those other respects in which human physical make-up is wanting, for man alone of animals, some contended, possesses the intellectual powers that enable him to take advantage of his bodily parts in a manner that affords him a variety, flexibility and inventiveness in their use that are impossible for other species. This line of argument hints at the strongly teleological bent evident in much ancient discussion of human anatomy. Galen dedicated his treatise *De Usu Partium (On the Usefulness of Bodily Parts)* to an elaborate defense of his thesis that nature designed the parts of the human body in such a way as to carry out their aim and purposes.⁵ He states early on (I. 6) that he intends in the treatise to inquire not just whether the human hand is useful and appropriate to a rational animal, but whether it could have been constructed in any other manner that would have rendered it even more useful than it is.

Galen's argument here is heavily influenced by Aristotle's anatomical teleology and by his often-repeated assertion that nature does nothing without a purpose. Just as Galen's assertion (I. 2) that man alone of animals is godlike recalls Aristotle's remark that man "alone of animals known to us has a share of the divine" (μόνον μετέχει τοῦ θείου τῶν ἡμῖν γνωρίμων ζώων, *Parts of Animals* 656a7–8), a circumstance that results from the fact that man's anatomical components are most naturally placed to afford him the capacity to stand upright (*Parts of Animals* 656a12–13), so too does Galen's praise of the utility of the human hand in the opening chapters of *On the Usefulness of Bodily Parts* allude to Aristotle's similar praise (*Parts of Animals* 687a5ff). Hands, Aristotle explains, are an implement (αἱ γὰρ χεῖρες ὄργανόν εἰσιν, *Parts of Animals* 687a10), and nature, "in the manner of a practical human being" (καθάπερ ἄνθρωπος φρόνιμος, *Parts of Animals* 687a11), always gives an implement to that being that can best use it (ἡ δὲ φύσις αἰεὶ διανέμει ἕκαστον τῷ δυναμένῳ χρῆσθαι, *Parts of Animals* 687a11–12). Since nature always arranges things in the best way possible, she has given man hands because he is

the most intelligent (φρόνιμος) of beings (*Parts of Animals* 687a17).⁶

The acknowledgment that non-human animals do indeed possess some anatomical features that would appear to give them an advantage over human beings, including claws, fangs, beaks and wings, more effective natural aids towards self-preservation than humans can lay claim to, did not always arouse admiration for other species in ancient authors but contributed to the belief that man is by nature engaged in a just war against other animals, to which Aristotle refers (*Politics* 1256b26–27) and which Porphyry says is an argument raised by those who oppose the position that humans should refrain from eating meat (*On Abstinence from Animal Flesh* I. 14). In contrast, some few Greek writers, in particular those who, like Plutarch, were disposed to attribute a degree of rationality to non-human species, drew a rather different conclusion from the idea of the anatomical advantages of non-humans. These authors argued that such advantages indicate in non-humans a greater degree of natural happiness and an innate propensity toward virtue in creatures that live in accord with their natures. To this line of thought, defended by animal-friendly writers who claimed that non-human animals possess some reason, was added the argument that non-human animals do not need to learn how to master their environment but do so naturally, aided from birth by bodies built for success.⁷

Just as ancient arguments developed to prove that man alone of animals possesses reason live on in current philosophical debate, so too do ancient claims of human anatomical uniqueness have counterparts in current scientific debates concerning the use of tools in non-human animals, the anatomical prerequisites for articulate speech, and the connection between hands and linguistic capacity in non-humans. The preoccupation among modern cognitive philosophers, linguists and neurobiologists with the mechanics behind the production of speech may be viewed as a survival of the ancient “man alone of animals” stance in its physiological manifestation, since it is defended as much by arguments drawn from human beings’ unique anatomy as from their highly touted unique intellect. Only humans, it is claimed, have the mouth structure that allows for a sophisticated and nuanced language, while evidence that some simians can master and manipulate the hand gestures required in non-verbal languages are downplayed as indicators of rational activity in non-human species.⁸ We recall that Xenophon (*Memorabilia* I. 4. 5) had argued that the divinity had designed the parts of the human mouth in a manner ideally suited to allow them to fulfill their intended ends, although he does not specifically link the excellence of the human tongue to the production of articulate speech but rather

Aristotle expands on the use of the human tongue in the production of speech, calling it an organ “unlike that of any other animal” (ὁὐχ ὁμοίαν τοῖς ἄλλοις, *Parts of Animals* 659b35). He declares the tongue useful not only for the perception of tastes but likewise for the production of letters and sounds, a number of which are formed by movements of the tongue. If the tongue and lips were not supple, the tongue could not produce most combinations of letters (*Parts of Animals* 660a3–8). The human tongue is capable of such feats because it is the freest, softest and broadest among animal tongues (*Parts of Animals* 660a17–18). He maintains as well (*Parts of Animals* 661b13–16) that, while other animals have teeth, those of human beings are, like the tongue, especially adapted to the production of speech. It is interesting to note that Aristotle does allow that birds use their tongues toward the communication of some sort of information to their conspecifics (*Parts of Animals* 660a35–661b2). He had made a similar claim (*History of Animals* 504b1–3) when observing that birds are second only to human beings in the use of the tongue for the production of articulate speech. Indeed, Aristotle allows that voice itself is not limited to human beings but is possessed as well by all animals that have the physiological apparatus needed for the production of sound. All animals that breathe, have lungs and have a windpipe through which air may be exhaled are capable of sound (*On the Soul* 420b9–16). In all animals, the soul (ψυχή, *psūchē*) causes air to strike against the windpipe, and since all animals are possessed of soul, all are capable of sound (*On the Soul* 420b23–33).¹⁰

A teleological interpretation of the anatomical features of the human animal is not limited in ancient sources to Xenophon, Aristotle and Galen, but finds perhaps its fullest flowering in the thought of the Stoics, whose severely anthropocentric view of the hierarchy of animal life we discussed earlier.¹¹ The second book of Cicero’s treatise *On the Nature of the Gods* offers a detailed exposition of the Stoic view of the part played by providence in the construction of the human body. Cicero’s expositor of the Stoic conception of divinity, Balbus, charges (II. 133) that it is absurd to suppose that nature designed the cosmos in its infinite complexity for the benefit of irrational animals rather than for man, a being whose entire structure is evidence of perfection. In defense of his contention, Balbus argues that the parts of the human mouth are so situated as to provide for the perfect disposition of the food that nourishes man (II. 134–135), and he employs a “man alone of animals” variant to praise man’s upright posture which affords him a “view of the heavenly bodies afforded to no other species” (*spectaculum ad nullum alius genus pertinet*, II. 140).

In a manner that recalls similar assertions made by Xenophon's Socrates that human anatomy has been purposefully arranged by providence (*Memorabilia* I. 4. 6), Balbus then claims that man's sense organs have been so placed in the body as to allow for full and accurate perception of the messages that they relay (II. 140–141). It follows, Balbus argues, that man's senses are superior to those of other animals because they allow man to appreciate the finer things of nature like art, music and the delights of perfumes and fine foods (II. 156). Balbus' encomium of the divinely instituted anatomy of man ends with an elaborate composite picture of the three advantages that prove the special favor of the gods: man's reason, "brought to perfection by divine providence" (*divina cura perfecta*, II. 147), man's hands, those "servants fitted to many skills" (*aptas multarum artium ministras manus*, II. 150), and man's upright posture, evidence that man's reason touches the skies, for "we alone of living creatures know the risings and settings and movements of the stars" (*solī ex animantibus nos astrorum ortus obitus cursusque cognovimus*, II. 153).¹²

The conclusion that Balbus draws from his exposition seems to him incontestable: he has "sufficiently demonstrated how greatly man's nature surpasses all creatures" (*satis docuisse hominis natura quanto omnis anteciret animantes*, II. 153). In the remaining sections of the second book of the treatise, Balbus argues that man's anatomical advantages prove that "all the components of the world that human beings use are made and prepared for the sake of human beings" (*omnia quae sint in hoc mundo quibus utantur homines hominum causa facta esse et parata*, II. 154). The anatomical make-up of other animal species is itself designed to support this divine dispensation, for what else, Balbus asks, could the incredible sense of smell possessed by dogs connote than that the gods intended them to protect their human masters and to aid them in the hunt (II. 158).¹³ Even the unquestionable anatomical excellences of other animal species are viewed by Cicero's exponent of Stoicism as proof of providence's special care for the welfare of man.

The texts of Aristotle, Galen and Cicero examined above hint at the remarkably stereotypic and repetitious nature of the phraseology employed in ancient sources to comment on the considerable advantages that his unique possession of hands and his upright posture confer upon man alone of animals. Such assertions are not limited to philosophical and scientific authors, for even classical poets have occasion to comment on the posture of humans and on the special place in the hierarchy of creation that it affords them. In his account of the early days of man on earth, Ovid notes that, while all other animals behold only the earth beneath them, man's upright

countenance allows him to see heaven and to cast his glance upward to the stars (*os homini sublime dedit caelumque videre/iussit et erectos ad sidera tollere vultus*, *Metamorphoses* I. 85–86). Similarly, the Stoic-inspired didactic poet Manilius argued that man, who rules all things, who alone has speech and intellect, who made beasts his servants, “alone stands with the citadel of his head upright and in triumph directs his starry eyes to heaven” (*stetit unus in arcem/erectus capitis victorque ad sidera mittit/sidereos oculos*, *Astronomica* IV. 905–907). An especially charming instance of this notion is the fanciful etymology that Plato offers for the word ἄνθρωπος (*anthrōpos*), a creature so named because he alone of animals “looks up” (ἀναθρεῖ, *anathrei*) and reflects upon what he has “seen” (ὄπωπε, *opōpe*). Hence man is correctly called *anthrōpos* because “man alone of animals . . . looks up at what he sees” (μόνον τῶν θηρίων . . . ἀναθρῶν ἃ ὄπωπε, *Cratylus* 399c). In an equally fanciful instance of Platonic “anatomy,” we are told (*Timaeus* 91e–92a) that earthbound and wild animals are derived from persons who ignored philosophy and the study of the heavens, in consequence of which they are anatomically “downcast,” with heads that face the earth, since they are akin to the earth, and the divinity outfitted them with four legs to insure that they remain drawn down to earth.

Stereotypic treatment of anatomical features in man is not limited in ancient sources to discussion of human hands and posture, but is observable as well in Greek and Roman references to the defense mechanisms of other species which humans either lack altogether or possess in only a limited degree, including claws, beaks, fangs and fur.¹⁴ Still other marks of human anatomical uniqueness caught the attention of one or another Greek author. Aristotle notes (*History of Animals* 518a18–20) that in man alone of animals is some hair found at birth and some grown subsequently, throughout the various stages of life. He also makes the intriguing observation (*Parts of Animals* 669a19–21) that only in man does one observe “leaping” (πηδήσεως, 669a20) of the heart because man alone can experience hope and expectation of future events. Galen (*On the Usefulness of Parts* III. 1) notes that, in addition to man’s many other unique anatomical advantages, only he can sit comfortably on his hip bones, a fact, he claims, that few others have noted, for while many have observed that man alone of animals can stand upright, it has escaped their notice that man alone can sit.

In the course of his discussion of “various other distinctive human characteristics,” Renehan observes, “The most awesome claim in the entire ‘man alone of animals’ series is that man alone is, in one sense or another, an imitation of the divine.”¹⁵ While Renehan does not

connect the ideas here, this religious dimension of human beings results from the exercise of their vaunted reason aided by their unique anatomical endowments of upright posture and hands. Renehan's analysis of this "man alone of animals" claim focuses on classical and early medieval interpretations and incorporations of the biblical pronouncement (Genesis 1: 26) that man was formed in the image and likeness of God and on the history of the claim in Christian apologists that only man is an imitation of the divine. Our ancient sources mention as well some more mundane uses for man's hands in the service of the gods. In the course of Balbus' discussion of the excellences of the human anatomy, he notes (*On the Nature of the Gods* II. 150) that man's hands allow him to construct cities, walls, houses and temples, while Galen boasts in similar phraseology that man's unique possession of hands enables him to raise altars to the gods and to construct statues to his divinities (*On the Usefulness of Bodily Parts* I. 3).¹⁶ Upright posture may suggest to man that the gods intend him to grasp his participation in the divine by affording him a glimpse of the heavens, and the divine gift of reason may suggest to man how best to worship his gods, but his unique hands allow him to give concrete expression to his religious sensibilities. In the passages cited above from Cicero and Galen, our authors are speaking specifically of the contribution made by man's most versatile and adaptable anatomical endowments rather than of the intellectual gifts that prompt those wondrous appendages into action. This juxtaposition of mind and body in the service of the gods is emphasized in Plato's account (*Protagoras* 322a) of Prometheus' gift of intellectual prowess to man to make up for the weakness of his body occasioned by Epimetheus' foolish distribution of anatomical advantages to non-human species, a passage that we examined earlier,¹⁷ and while both Cicero and Galen make the connection elsewhere in their expositions between intellectual superiority and anatomical advantage, the emphasis in our two passages here is solely on the value of complex, articulated hands toward man's advance to his exalted status as nature's artificer, her *technitēs*.

This desire to view the human hand in its capacity as a tool contributing to human progress may be seen in the minute descriptions of the anatomy of the hand and its component parts provided by both Aristotle and Galen. Aristotle observes that the hand can function as a claw and even as a horn because its fingers are so constructed that they can take hold, exert pressure, lift and press down (*Parts of Animals* 687b10–15). While the teleological notion that nature has designed these features of the hand to fulfill the ends that she intended is readily identifiable in Aristotle's presentation, he

stresses at the same time how many practical applications such articulated implements as hands have in man's everyday life. The two basic powers of the hand that Aristotle singles out for special consideration are its skill at pressing and grasping, which lead to a third power, that of enfolding. Aristotle's analysis is considerably amplified in Galen, who notes that the hand's ability to extend its reach allows man to pick up much larger objects than would otherwise be possible (*On the Usefulness of Bodily Parts* I. 18), and this feature makes it likewise possible for the hand to recognize shapes. Equally useful is the capacity of each finger to flex independently and to assume a variety of positions (I. 12). Both Aristotle (*Parts of Animals* 687b11ff) and Galen discuss the usefulness of the human thumb for grasping small objects.¹⁸ Galen (I. 22) recounts how apes seek to amuse children by attempting to mimic those actions that the thumb makes easy for humans, including playing musical instruments, writing and even dancing, and while he here comments on nature's providence in providing thumbs to man, his examples stress man's prowess as *technician*.

If the possession of hands guarantees human beings' cultural ascendancy, the absence of this supremely serviceable feature in non-human animals assured their cultural impoverishment vis-à-vis their human counterparts, a situation exacerbated by their lack of a rational faculty. As we have noted earlier, however,¹⁹ Aristotle recognized that one could not ignore the obvious ability of non-human animals to manipulate the components of their physical environment in such a way as to assure the successful conduct of their everyday lives, a circumstance that must be due either to the presence in them of what Aristotle termed "technological skill" (τέχνη) or of at least some other comparable feature. Aristotle had attempted to define the nature of animal "skill" in his *History of Animals*, wherein he stated that "just as in humans [there are] technological skill, wisdom and intelligence" (ὥς γὰρ ἐν ἀνθρώπῳ τέχνη καὶ σοφία καὶ σύνεσις, 588a29–30), "so in some other animals there is some other similar natural capacity" (οὕτως ἐνίοις τῶν ζώων ἐστὶ τις ἕτερα τοιαύτη φυσικὴ δύναμις, 588a30–31). The apparent technological skill in non-human animals stands in a relation to human technological skill that Aristotle viewed as one of analogy rather than of degree. He explained his position further in the *Metaphysics*, where he stated that other animal species "live by impressions and memories, and have only a small share of experience" (τοῖς φαντασίαις ζῆ καὶ ταῖς μνήμαις, ἐμπειρίας δὲ μετέχει μικρόν, 980b26–27), while "the race of humans [lives] by technical skill and reasonings" (τὸ δὲ τῶν ἀνθρώπων γένος καὶ τέχνη καὶ λογισμοῖς, 980b27–28). Aristotle's insistence that seeming

instances of technological prowess in non-human species are in fact the result of a faculty analogous to human *technē* but ultimately inferior to it allows him, in the *Physics*, to categorize such apparent instances of animal “technology” as birds’ nests, beehives, and spider webs as the result of the working of “nature” (φύσει, *Physics* 199a27), that is, of what would now likely be termed “instinct” by at least some modern philosophers and cognitive ethologists.²⁰

For Aristotle, as well as for most other ancient writers, the topic of animal dwellings was primarily of interest for the light it shines on the question of the potential intellectual properties of non-human species, namely of whether such endeavors reveal the action of a rational faculty in non-human species.²¹ Yet the issue of *technē* in non-human animals is no less a question of animal anatomy, an aspect of the topic that figures prominently in anecdotal accounts of animal technological feats in Pliny, Plutarch and Aelian who, in the course of their discussions of whether such feats indicate the presence of some degree of reason, address the question of whether non-human animals can in fact use “tools.”²² Pliny relates (*NH* VII. 125) that on one occasion, during a drought, a raven (*corvus*) was observed to drop stones into an urn in which some rain water had accumulated, thereby causing the water to rise to a level at which the bird could drink it, a feat that Plutarch (*On the Cleverness of Animals* 967A) reports was observed in both crows (κόρακες) and a dog. While Pliny’s account is limited to an unadorned account of the feat itself, Plutarch allows the speaker in his dialogue who relates the marvelous incidents to comment on the impressive level of intelligence that the animals demonstrate by their actions. Along similar lines, Aelian (*NA* II. 48) relates how Libyan crows drop pebbles into jars placed on rooftops by the locals to gather rain water. More remarkable still, Pliny recounts (*NH* X. 59) that cranes (*grues*) that serve as sentries for their flocks during long migratory flights hold stones in their claws during periods of rest to keep them from falling asleep, while Plutarch (*On the Cleverness of Animals* 967B) reports that geese carry stones in their mouths during flights to keep themselves from their usual loquacious honking, thereby avoiding attracting the attention of predatory eagles. Although our authors are in the final analysis primarily interested in the level of intellectual activity that such feats reflect, in each case the anatomical dexterity of the animal species discussed proves no less fascinating to them.

From Greek antiquity into the twenty-first century, questions of tool use in non-human animals have been viewed in the first place as part of the broader question of the relative intellectual endowments of human and non-human animals, and, as our study has suggested, the

topic of human anatomy has been of interest to anthropocentric philosophers and ethologists most especially for the support that it affords to the claim that man alone of animals is master of his physical environment through the exercise of his reason. Material culture is the product of his mind working through his hands. Anatomy possesses in such discussions a kind of secondary interest. But just as we have seen in Aristotle, Galen and theriophilic authors like Plutarch, that the anatomy of non-human animals is at times considered strictly in its structural sense as a mechanical tool, apart from any teleological significance that may be ascribed to it and from any connection it may have to the intellectual properties of non-human species, so too we find that in modern philosophical and ethological discourse non-human animal anatomy is of interest for itself and for its connection to the question of animal intellect. It is striking that the hand and tongue still figure prominently in modern debate, as they did in Greek antiquity, on the topics of tool use and language possession in non-human animals, although even references to the upright stance of human beings may be found in modern authors who contrast them with other animals.

Some decades ago, philosopher Mortimer Adler drew evidence from paleoanthropology to argue that man is a unique animal not least because of his possession of some anatomical features not possessed to any great degree by non-human animals, evidence that he adduced in defense of his thesis that man differs from other animals radically in kind.²³ He cites what he terms man's erect and bipedal stature and his flexible hands with thumbs as features that act in tandem with the dominance of man's cerebral cortex by left or right hemisphere as contributors to man's uniquely exalted status in the hierarchy of animal creation.²⁴ Adler's mention here of man's upright posture is a striking echo of the ancient formulation of the issue, and it is remarkable that he had earlier singled out this feature of man when he had observed that only man can "walk erect," which might be assumed to be a contributing factor to what he terms in that same passage man's ability to "engage in religious worship,"²⁵ if he has in mind what the Greeks viewed as man's unique ability to gaze at the heavens and to contemplate divinity. While Adler's anatomical observations are rather abstract and general, it would be difficult to find a more "classical" expression of the view that human beings' anatomical features contribute to their primacy in creation.

The question of tool use in non-human species viewed as a function of both their intellectual and their anatomical endowments working in tandem figures prominently in current ethological discourse and, while ethologists value such discussion primarily for the light it may

shed on the intellectual capacities of other species, the instances of tool use in non-humans that they cite are at times curiously reminiscent of examples cited in ancient authors. It is noteworthy that some scientists express the same wariness in accepting instances of such tool use in non-humans as they do in accepting other sorts of evidence in support of the thesis that other species possess some degree of reason. Neurobiologist Marc D. Hauser downplays examples of apparent tool use by non-humans on the grounds that the vast majority of such cases involve the appropriation of what he terms “gifts of nature,”²⁶ that is, “found” tools that non-human animals utilize without modification, like leaves, sticks and stones. For him, evidence that other species can “design” tools through modification of found items would be needed to allow us to attribute conscious mental activity to them. Hauser’s caution suggests a desire to defend the position that only humans possess the anatomical sophistication required for the successful production of tools, even if some other species can utilize objects that come to them “ready-made.”

While ethologists have isolated relatively numerous examples of tool use in non-human animals, it is the tool-using prowess of birds that has elicited the most attention from researchers, and it is remarkable how closely modern descriptions of tool use by birds mirror those found in classical sources. As with Pliny, Plutarch and Aelian, it is the corvids, the family of birds that includes crows, ravens, jays, jackdaws and magpies, that receive the most admiring attention. Ornithologist Tony Angell has observed that “it appears that no other birds approach their breadth of intelligence.”²⁷ He recounts instances of stratagems employed by birds to secure water that parallel classical accounts. “Another captive jay,” he recounts, raised the water level in its drinking dish by placing solid objects in the container. The water was thus raised to where the jay could reach it. . . .”²⁸ A more sophisticated instance of tool use that suggests the ability to modify objects which Hauser considers requisite to the attribution of conscious mental activity to other species is recounted by ornithologist Gavin Hunt who notes that crows have been known to make hooked tools by using their beaks to strip leaves from branches that have a naturally occurring hooked shape and using them to extract food particles from holes in trees.²⁹ Throughout such anecdotal narratives, we observe instances of animal anatomy in the service of animal intellect, and while the ethologists discussed above may be principally interested in demonstrating the intellectual capacities of non-humans, they display as well a lively admiration for the anatomical features that support this intellect.

Just as the views of modern science on the use of tools by non-

human animals recall ancient discussions, so too do we find modern explanations for some limitations in language production in non-human animals that sound curiously Aristotelian in their attribution of this circumstance to shortcomings in the vocal anatomy of non-human species. Marc D. Hauser weighs in on this issue as well. Addressing the question, discussed in Aristotle, of why birds do not acquire human language, Hauser offers as one part of his explanation what he calls a “mechanistic” explanation for the phenomenon, namely, that the vocal apparatus of birds depends on a vocal tract that is designed primarily for digestion and not for communication. In humans, the larynx descends deeper into the chest, allowing the human to become what Hauser calls a “talking machine,” while the avian vocal system allows only whistled song.³⁰ Hauser notes that he is considering in this discussion only the “mechanical constraints” that hinder speech production in birds, and not those imposed by differences in brain functions between humans and other species, that is, he admits to addressing the issue here strictly in its anatomical dimensions. Hauser’s observations on the shortcomings of non-human animal anatomy are noteworthy in combining arguments that mirror both Aristotle’s assertion that only humans have the anatomical features needed for true tool creation and the philosopher’s claim that the vocal anatomy of birds is insufficient for the production of true language. Non-human anatomy, in the opinion of both Aristotle and Hauser, is simply not up to either task.

Anatomical arguments very similar to those of Hauser have been employed by linguists as well to account for the remarkably disappointing results of experiments to determine whether non-human animals can produce words used in human speech. In his provocatively entitled book *Adam’s Tongue: How Humans Made Language, How Language Made Humans*, linguist Derek Bickerton observes concerning experiments conducted in the 1940s at the Yerkes National Primate Research Center by Keith and Cathy Hayes that “after years of trying, they got their chimpanzee Viki to produce just four words: ‘mama,’ ‘papa,’ ‘cup,’ and ‘up.’”³¹ Bickerton cautions his reader against understanding that he views the animals’ utterances as “words,” but suggests that they should rather be termed “protowords,” since, he notes, “an ape’s vocal control and physiology just aren’t capable of speech.”³² Bickerton addresses the question of animal language here, as had Hauser, strictly in its anatomical dimension, specifically with regard to the vocal limitations of non-human animals, but he adds another anatomical argument against language acquisition in other species that pointedly ignores considerations of vastly inferior mental endowments in non-humans that figure so

prominently in the arsenal of arguments cited against admitting other species into the company of linguistic beings. Bickerton observes that he does not consider high levels of cognition necessary to produce the earliest stages of language, what he calls “protolanguage,” claiming rather, “I think it has more to do with having the aural and/or visual capacity to sense the world as divisible into a number of separate and distinct categories.”³³

The objections raised by Hauser and Bickerton suggest the sort of rigorous anthropocentrism that prompted philosopher Mary Midgley to call attention to man’s fervent desire to hold fast to language possession, which she eloquently terms “the key to our castle,”³⁴ as that closely guarded guarantor of human uniqueness that humans cite as their last best proof of their supreme rationality. Such doubts suggest at the same time an attempt on the part of human beings to “raise the bar” on non-human animals by belittling or dismissing apparent instances of language use and formation in other species. As soon as it is shown that a non-human species demonstrates even the slightest trace of aptitude for some linguistic capacity previously believed to be peculiar to man alone of animals, skeptical investigators demand evidence of more sophisticated linguistic mastery before they are willing to allow that any non-human animals may be viewed as linguistic creatures in any meaningful sense.

Some philosophers, ethologists and linguists are similarly skeptical of evidence that non-human species are capable of mastering at least some elements of human language that they reproduce in non-verbal form, through the use of that other anatomical feature of man so widely extolled in ancient sources, the hand. We noted above Galen’s dismissive account of attempts by apes to amuse children by imitating hand gestures easy for humans endowed with thumbs to perform.³⁵ Such skepticism finds a modern counterpart in the backlash still encountered by experiments conducted in the 1960s and 1970s that suggested that chimpanzees, bonobos, orangutans and gorillas can be taught to use American Sign Language (ASL).³⁶ More recent examination of the lab results of those scientists who documented their experiments with these animals has led some to claim conscious or unconscious cueing on the part of their human trainers leading rather to imitation of their human trainers than to active language production on the part of the animal subjects. While an ape may indeed have a hand that can form the signs used in non-verbal human language, some object, the hand of non-human animals is in the final analysis not guided by a mind that is capable of the flexibility, variation and syntactical sophistication that characterize human language. Once again, a potential attack on human beings’ uniquely

exalted place in animal creation is warded off by recourse to humans' supreme reason. The "key to our castle," as Midgley characterizes language, remains firmly in the possession of man, in the view of many scientists and philosophers. If our animal neighbors are not linguistic beings, can they be emotive beings? If they cannot speak, can they feel, and what do they feel? The emotional life of non-human animals forms the subject of our last chapter.

Notes

- 1 On Xenophon and Plato on human anatomical superiority, see [Chapter 2](#), pp. 25–26 and pp. 32–33. On the Sophists, see [Chapter 3](#), pp. 30–36.
- 2 On the ambivalent view of Pliny the Elder regarding man's physiological make-up, see [Chapter 3](#), pp. 37–38. Similarly ambivalent is the grotesque vision of Lucretius (*De Rerum Natura* [*On the Nature of Things*] V. 925–930, 988–993) who contends that, while human beings were naturally harder in their physiological make-up in the earliest days of human life because humans were born from the earth itself, this did not save them from the teeth of wild beasts and from seeing themselves buried alive in the jaws of predators. Philo of Alexandria (*On the Posterity and Exile of Cain* 160–162) offers a fascinating take on the idea of the anatomical advantages of non-human animals, observing that no one would deny that other species are stronger, faster and possessed of keener senses than are human beings, but we cannot be sure after all "if these in truth are good things" (εἰ δὴ ἀγαθὰ πρὸς ἀλήθειάν ἐστιν, 160), for all agree that nature is the mother of irrational animals but the stepmother of man, who relies on reason. For Philo, apparent anatomical advantages in non-human species are actually signs of the inferiority of those species that must rely on such things because they lack the divine gift of reason.
- 3 Aristotle's idea is elaborated by Galen (*De Usu Partium* [*On the Usefulness of Bodily Parts*] I. 3), when Galen observes that man should not be viewed as defenseless, vulnerable or improperly outfitted with bodily equipment since he can, as he wishes, put on armor, sandals and clothing of all varieties that are at his disposal, not to mention the more elaborate protections of houses, walls, towers and cities that he erects. Such beastly endowments as horns, Galen contends, would be of no value to man in constructing a house, and it is the hand that makes all of man's superiority possible. Indeed, he continues, not only can man provide his own defensive coverings, but, because he is a peaceful and social creature, he uses his hands to compose laws, raise altars and statues to his divinities, build ships, make musical instruments, and in his writing leave to posterity accounts of these very actions. Galen's survey of cultural advances possible for man alone of animals strikingly foreshadows the similar catalogues of Smith and Adler. See Introduction, pp. 1–3.
- 4 The Greek text of the epigraph reads: χεῖρας μὲν δὴ μόνος ἀπάντων ζώων ἄνθρωπος ἔσχεν, ὄργανα πρέποντα ζώῳ σοφῷ. δίδουν δ' αὐτὸ μόνον ἐν τοῖς πέζοις ἐγένετο καὶ ὀρθόν, ὅτι χεῖρας ἔσχε. An extensive catalogue of ancient references to man's upright stance and heaven-directed gaze is offered in Dickerman, *De Argumentis Quibusdam* 92–101. Dickerman demonstrates that the ancient fascination with human posture was not confined to philosophical and scientific authors but found a place as well in epic poetry, technical manuals and religious

tracts.

- 5 An excellent discussion of Galen's teleological interpretation of the parts of the human hand and arm is offered in Karl Gross, "Galens teleologische Betrachtung der menschlichen Hand in de usu partium," *Sudhoffs Archiv* 58 (1974) 13–24. Gross systematically analyses each section of Galen's treatment of the hand and arm in *De Usu Partium* I, and demonstrates that the physician's focus in this work is not on the physiology but rather on the "fitness" (*Tauglichkeit*) of each feature to perform its divinely ordained purpose. More recently, Oddone Longo, "La Mano dell' Uomo da Aristotele a Galeno," *QUCC* 66 (2000) 7–30, argues that, among all claims of man's unique anatomical capacities, the possession of hands is of primary importance in classical discussions.
- 6 Aristotle here counters the view of Anaxagoras (DK 59A102) that man is the most intelligent being because he has hands. Anaxagoras' anthropological observation found little support against the view of Aristotle and later of Galen. On this disagreement, see Vegetti 101; Lanata 23; Longo 7.
- 7 On living in accord with nature as a prerogative of non-human species, see [Chapter 4](#), pp. 66–67.
- 8 On the mastery of American Sign Language (ASL) by non-human species, see Introduction, pp. 5–6.
- 9 See [Chapter 3](#), p. 26.
- 10 An excellent overview of the complex topic of Aristotle's biology of language and communication in humans and other species is found in Ronald Zirin, "Aristotle's Biology of Language," *TAPhA* 110 (1980) 325–347. Zirin briefly addresses the question of how Aristotle's theories of speech production anticipate those of some modern linguists.
- 11 On Stoic teleology, see [Chapter 4](#), pp. 52–53.
- 12 Cicero makes very similar remarks about the superiority of human anatomy that afford man a view of the heavens in his treatise *De Legibus* (*On the Laws*) I. 26, but he does not develop them in that passage beyond remarking how this arrangement is particularly suited to man's intellect.
- 13 Balbus' argument here is restated and elaborated by Porphyry, *On Abstinence from Animal Flesh* III. 20, who adds there that the Stoic Chrysippus had maintained that animals like bears and lions serve to sharpen the courage of human beings, while the gods fashioned shellfish and some varieties of birds so that man could have sauces and side-dishes. Similarly, Plutarch, *On the Self-Contradictions of the Stoics* 1044D, remarks that the Stoics stated that insects serve only to keep humans from oversleeping and mice only to ensure that humans stay neat and clean.
- 14 See Dickerman, *De Argumentis Quibusdam* 48–73. Dickerman is particularly interested here in the topic of man's infirmity relative to the physical robustness of other species, and he devotes much attention to an attempt to ascertain the ultimate literary source of the examples common to a number of ancient sources. See above, [Chapter 3](#)n3.
- 15 Renehan 251. For a detailed analysis of the ancient idea that only man has a sense of divinity, see Newmyer, "Paws to Reflect."
- 16 See note 3 above for a more complete citation of Galen's catalogue of benefits that the hand affords man.
- 17 See [Chapter 3](#), pp. 32–33.
- 18 John Napier, *Hands* (New York: Pantheon Books, 1980) offers an analysis of many of the issues of human hand capacities (opposition, movement,

prehension, etc.) that are discussed in Aristotle and Galen, and the manner of his presentation recalls the enthusiasm for man's special anatomical gifts in evidence in our ancient sources. Napier treats as well the anatomical features and advantages of the hands and hand-like appendages of other species.

- 19 See [Chapter 4](#), pp. 49–50.
- 20 On the use of the term φύσις (*phusis*) to indicate the sort of pre-programmed animal behaviors commonly termed “instinct,” see Newmyer, *Animals, Rights and Reason* 37–38.
- 21 On the question of the intellectual ramifications of nest building and hive construction, see [Chapter 4](#), p. 66. Dickerman, “Some Stock Illustrations” 125, commenting on the stereotypic and repetitious nature of ancient discussion of animal dwellings, calls attention to “how persistently the same illustrations recur in authors of widely varied types and periods whenever the question of animal intelligence comes into consideration.”
- 22 The topics discussed here are treated in greater detail in Newmyer, “Tool Use in Animals.”
- 23 On Adler’s case for man as a creature differing from other animals both in kind and in degree, see Introduction, p. 2–4.
- 24 Adler 83.
- 25 Adler 52.
- 26 Hauser 35.
- 27 Tony Angell, *Ravens, Crows, Magpies, and Jays* (Seattle: University of Washington Press, 1978) Preface, n. p.
- 28 Angell 78.
- 29 Gavin Hunt, “Manufacture and Use of Hook-tools by New Caledonian Crows,” *Nature* 379 (1996) 250.
- 30 Hauser 120.
- 31 Derek Bickerton, *Adam’s Tongue: How Humans Made Language, How Language Made Humans* (New York: Hill and Wang, 2009) 73.
- 32 Bickerton 73.
- 33 Bickerton 87.
- 34 See Introduction, p. 7.
- 35 See above, p. 113.
- 36 Rodd 74–104 provides an excellent overview of language experiments with apes, with a judicious and cautious evaluation of claims of linguistic prowess on the part of non-human animals. Roger Fouts, *Next of Kin: What Chimpanzees Have Taught Me about Who We Are* (New York: Morrow, 1997), offers an enthusiastic and sensitive account of experiments with language and chimpanzees in the 1960s, and he concludes that such experiments leave little doubt that chimps are capable of mastering elements of human language.

7 Animal Affect

Is “Man” Alone of Animals Emotional?

The question is not, Can they *reason*?, nor, Can they *talk*? but, Can they *suffer*?

(Jeremy Bentham, *Introduction to the Principles of Morals and Legislation*, Chapter XVII)

In Robert Renehan’s examination of the profoundly anthropocentric bent of Greek thought that manifested itself in the numerous reiterations and variations of the “man alone of animals” formula that have formed the focus of our study, that formula, in the majority of its applications, is viewed as a reflection of an attitude toward human intellectual capacities that, in the opinion of the Greeks, were not shared by other animal species.¹ It is man’s intellectual uniqueness that preoccupies Renehan, although he incorporates some slight discussion of man’s supposedly unique anatomical features. His decision to omit almost entirely the third type of claim of human uniqueness encountered in classical sources, namely that man alone of animals experiences true emotional states, is puzzling on two counts. Not only do we find relatively frequent assertions in Greek and Roman sources that man alone of animals experiences a number of what would equally so today be recognized as emotions, but, since emotions were regularly viewed in Greek philosophical thought as having a cognitive dimension, one might have expected Renehan to include discussion of Greek claims of man’s emotional uniqueness, if in fact emotional states are to be understood as operations of the reason reacting to external stimuli, as Greek philosophical schools explained their origin.

Ancient speculation on whether only man is capable of experiencing emotional states remains the least studied of the three types of “man alone of animals” claims encountered in classical sources, but examination of the ancient position is most timely in light of the fact that the issue of emotions in non-human animals figures prominently in current discussion among philosophers of cognition, ethologists and

neurobiologists who debate, sometimes with considerable rancor, whether other animal species are capable of experiencing emotions of any sort, which emotions other species do experience, and how investigators can judge when animals are under the influence of a given emotion. As with “man alone of animals” claims relating to the intellectual and physiological dimensions of non-human animals vis-à-vis those of human beings, we find that arguments employed by researchers to support or reject the hypothesis that non-human species are emotional beings find counterparts in classical sources, particularly in the claim that emotions entail a cognitive element. We encounter in ancient and modern writers, both those who deny emotional states altogether in non-human animals and those who drastically limit the range of emotions that can confidently be attributed to non-humans, the argument that more complex emotions require cognitive capacities beyond those that any non-human species is likely to possess. According to this argument, an animal must be able to recognize that an action is good or bad or admirable or blameworthy in order to be capable of experiencing certain complex emotional states.

Such a requirement makes clear the fact that, in both ancient and modern thought, the claims that man alone of animals is rational and that man alone of animals is emotional intersect in a striking manner. We have called attention to philosopher Mary Midgley’s observation that language is, for humans, the “key to our castle,”² on the grounds that only human beings are capable of true language. The belief that a capacity for complex and varied emotional states is likewise a uniquely human prerogative is no less vigorously defended by philosophers and scientists, perhaps because an admission that non-human animals are capable of rich emotional lives has potential consequences for the lives of human beings even more profound than the admission that non-human animals possess some degree of reason. If it can be proven that other species experience grief, fear, joy and love, human beings might feel compelled to reevaluate their treatment of their animal brethren if causing harm to other feeling creatures may be judged to be morally reprehensible. The famous pronouncement of philosopher Jeremy Bentham that forms the epigraph to our chapter calls attention to this dilemma. It is not the capacity in other species to think or to use language, skills so important to the debate on human–non-human relations since classical antiquity, that really matter in Bentham’s view, but rather a being’s capacity to feel, that is, to experience such emotions as joy, fear, grief and affection. It must at the same time matter to human beings, in Bentham’s view, whether other animals experience their lives as

happy or as miserable.

The possibility that other animal species may care about their own lives has proven to be profoundly troubling for researchers and has elicited a number of responses. Some researchers consider the topic of the emotional dimension of non-human animals to be inappropriate for study if not in fact impossible since, in this view, we cannot in the final analysis be certain of the emotional states of non-human species. Many non-human species cannot exhibit outward manifestations of their emotional states by facial expressions because of a lack of facial muscles, and some species cannot do so by means of vocalizations, while some animal expressions may be misleading to human beings, as when chimpanzees smile to indicate fear.³ Moreover, animal behavioral scientists are discouraged by their professional training from ascribing too wide a range of emotions to non-human animals lest they be charged with rampant anthropomorphizing. In their study of emotions in non-human animals, Jeffrey Moussaieff Masson and Susan McCarthy comment on this prejudice of scientific education, “By dint of rigorous training and great efforts of the mind, most modern scientists—especially those who study the behavior of animals—have succeeded in becoming almost blind to these matters.”⁴ Fears of accusations of unscientific anthromorphization have long conditioned the language used by ethologists and philosophers to refer to behaviors they might view as indicative of emotional states in non-human animals. Hence, what appears to be anger in other species may more safely be designated as aggression, while affection for conspecifics may be labeled as attachment.⁵

Issues relating to nomenclature are equally troublesome in the case of the study of ancient designations for various emotional states. In his excellent study of Greek theories of the emotions, David Konstan has shown that we cannot assume a complete correspondence between the classical and the modern understanding of a given emotion. Whereas in some cases the ancient understanding of an emotion is fairly close to the modern, as, for example, in the case of some aspects of “love,” in the case of other emotions the classical and the modern understandings are somewhat divergent, as in the case of “anger,” and in still other cases, modern societies have come to question whether certain states that the Greeks recognized as emotions, like “shame,” are in fact to be so designated.⁶ More troubling still, certain concepts that Aristotle designates as emotions, like that which he terms *χαρίς* (*charis*), are difficult for modern observers to identify as any emotion currently so understood. If we take the term to mean “gratitude,” as seems to be Aristotle’s meaning in this context, we might not consider this to be an emotion at all but rather a duty. Konstan reminds us as

well that, in the Greek mind, emotions were more closely identified with issues of social status than is the case in the modern view of emotions. The Greeks viewed emotions as indicative of the relative power that one individual wielded over another. Hatred, shame, envy and even love were to some degree seen as reflections of interpersonal relationships and social interactions and were a response to what Konstan terms the “relative success or failure of others, without primary reference to oneself.”⁷

Konstan’s discussion of the Greek view of the emotions focuses on Aristotle’s analysis of the emotions in his *Rhetoric*. Most ancient philosophical schools developed some theory on the nature and the operation of the emotions in human beings, although the lists of identifiable emotions varied from school to school and even from one to another adherent of a given school. It is Aristotle and, subsequently, the Stoics whose positions on the origins, classification and function of the emotions proved most influential on post-classical thought on the topic, not least on speculation concerning emotions in non-human animals. Aristotle’s most extensive discussion of the emotions or “passions” (πάθη, *pathē*) is found in the second book of his *Rhetoric*. It might initially seem surprising that Aristotle’s analysis of the emotions occurs in a work on rhetoric, but Konstan argues that since Aristotle considered judgment and belief to be fundamental to the operation of the emotions, it is not surprising that he develops his theory in a work that deals with the art of persuasion achieved, in part, through the arousal and manipulation of the emotions.⁸ In his *Rhetoric*, Aristotle maintains that “emotions are those things that inspire persons to change their opinions concerning their judgments, and pain and pleasure accompany them” (ἔστι δὲ τὰ πάθη δι’ ὅσα μεταβάλλοντες διαφέρουσι πρὸς τὰς κρίσεις, οἷς ἔπεται λύπη καὶ ἡδονή, *Rhetoric* 1378a20–22). Such a definition clearly assumes the operation of a cognitive element. Fear (φόβος, *phobos*), for example, is defined by Aristotle as a type of pain that arises from the impression (φαντασία, *phantasia*) of an imminent evil (*Rhetoric* 1381a21–22), and anger (ὀργή, *orgē*) is a longing for revenge for a slight (*Rhetoric* 1378a31–33). Similarly, shame (αἰσχύνη, *aischunē*) is an uneasiness about one’s misdeeds that appear to bring dishonor (*Rhetoric* 1383b13–18).

Difficulties arise immediately for non-human animals since Aristotle’s analysis presupposes intellectual capacities that he repeatedly denies to them. Since non-human animals are irrational, in his view, they cannot analyze whether they have been insulted, dishonored or shamed. Similarly, Aristotle maintains that non-human animals have no sense (αἴσθησις, *aisthēsis*) of good or bad or just or unjust (*Politics* 1253a10–18), the recognition of which triggers certain

emotions. Moreover “man alone of animals has speech” (λόγον δὲ μόνον ἄνθρωπος ἔχει τῶν ζώων, *Politics* 1253a10–11) with which to vocalize his feelings of being insulted or harmed. Aristotle may allow non-human animals the capacity to feel pain and pleasure, which he had declared essential to emotional response, but he denies them the capacity to analyze their pains and pleasures.

The Aristotelian insistence upon the participation of a rational component in true emotional response reappears in the Stoic adoption of his claim that emotions entail judgment (κρίσις, *krisis*) and, in Stoic teaching, non-human animals, as irrational beings, are incapable of such judgment.⁹ According to Diogenes Laertius (VII. 110–114), this position was outlined already in the thought of Zeno, founder of Stoicism, who held that every emotion involved a contraction or movement of the soul that followed upon a judgment (κρίσις, *krisis*, VII. 111) that this or that is in fact true: fear, for example, is the emotion that follows the judgment that danger is imminent. Later Chrysippus would hold that emotions are themselves judgments about good and evil. Non-human animals cannot evaluate their circumstances rationally and cannot therefore experience true emotions. The Stoics did allow that non-human species experience what the Stoics called “impressions” (φαντασίαι, *phantasiai*), but in the case of irrational animals, these impressions remain devoid of conceptual content. According to the Stoics, an animal can recognize that it is undergoing pain or distress, but it cannot reflect on the meaning of those experiences. In the same passage (VII. 110–114), Diogenes reports that Zeno identified four main types of emotions: grief (λύπη, *lupē*), fear (φόβος, *phobos*), desire (ἐπιθυμία, *epithūmia*) and pleasure (ἡδονή, *hēdonē*). All other emotions are subcategories of these four. Grief, for example, is divided into pity, envy, jealousy, distress and anguish. Pity (ἔλεος, *eleos*) is the type of grief that recognizes undeserved suffering, distress (ἀνία, *ania*) is a grief that endures and increases, and anguish (ὀδύνη, *odunē*) is a grief that causes pain in the individual who endures it.¹⁰

The Stoics stipulated, moreover, that rational assent (συγκατάθεσις, *sunkatathesis*) is a prerequisite to emotional response since one must either accept one’s impressions as true or reject them as false, and in turn either accord assent to them or withhold it from them. An emotion arises, therefore, not when an individual is moved by impressions or appearances of emotion-arousing situations, but when that individual’s mind accords assent to the impressions that moved it, and is then prompted to action. The Stoic Seneca remarked on this idea, “Consider whether you believe that anything can be attacked or avoided without the assent of the mind” (*vide ergo an putes aliquid sine*

adsensu mentis aut peti posse aut caveri, *De ira* [On Anger] II. 3. 5). Moreover, Seneca argues, animals, being unable to give assent to their impulses, are incapable of good or bad actions (*De ira* I. 3. 7). They therefore fall outside the purview of human moral consideration.

Earlier in his life of Zeno (VII. 51), Diogenes had explained that the Stoics differentiated impressions (φαντασίαι, *phantasiai*) that are rational (λογικαί, *logikai*) and therefore appropriate to human beings, from a second type that has no name but is proper to irrational beings, that is, non-human animals. Since non-human animals cannot form judgments, they cannot evaluate their own emotional status. An animal cannot be said to experience grief, for example, because it has no *conception* of what grief is. In any case, because animals, as irrational creatures, are in Stoic teaching incapable of meaningful language, they cannot verbalize the content of their impressions of what grief is.

The classical rebuttal of the Stoic-Aristotelian position on emotion in non-human animals was rather limited in scope and lay open to the charges of excessive reliance on anthropomorphizing anecdotes and appeals to common sense that continue to dog modern ethological investigations into the emotions of other species. Plutarch, antiquity's most vocal proponent of the position that "all animals partake of reason and understanding" (μετέχειν ὡς πάντα τὰ ζῷα διανοίας καὶ λογισμοῦ, *On the Cleverness of Animals* 960A), charges that when the Stoics speak forever of "judgments" (κρίσεις, *kriseis*) and "opinions" (δόξαι, *doxai*), and of the part that these play in the formation of emotions, they ignore the actual behavior of animals and the many indications of emotions like fear, anger and envy that such behaviors suggest (*On the Cleverness of Animals* 961D).¹¹ Plutarch addresses the Stoic connection between emotions and judgment when he asks how animals can recognize that which is harmful or beneficial, which their behaviors clearly indicate that they do, if they cannot "judge" (κρίνειν, *krinein*) between the two, and he wonders what value ears and eyes will be to creatures if we deny them the hope, fear and grief that these organs register (*On the Cleverness of Animals* 960F).

Grief is the human emotion whose potential presence in non-human animals seems especially to have attracted the attention of ancient authors. Pliny the Elder is one of our best ancient sources for the idea that non-human species may experience an emotion resembling grief and may perhaps have some conception of death, a position that Pliny had in fact expressly denied in Book VII of his *Natural History*, when he asserted that "grieving is given to man alone of animals" (*uni animantium luctus est datus*, VII. 5).¹² The eighth book of the *Natural*

History opens with a lengthy and admiring portrait of the elephant, an animal said by Pliny to be “nearest to human perceptions” (*proximum humanis sensibus*, VIII. 1. 1). After citing examples of their justice, ability to understand human languages, and natural modesty, Pliny offers a retelling of a historical anecdote that served to suggest that the elephant is capable of the emotion of grief. In the year 55 bce, in the course of celebrations marking the opening of his theater in Rome, the general Pompey staged arena entertainments, one of which pitted a herd of elephants against men in heavy armor. Initially the animals fought against their human foe, but when they realized that they could not escape slaughter, they attempted “to gain the compassion of the spectators, entreating them with indescribable gestures, while bewailing their situation” (*misericordiam vulgi inenarrabili habitu quaerentes supplicavere quadam sese lamentatione complorantes*, VIII. 7. 21).

Not just elephants grieve in classical literature, but dolphins are declared to be equally prone to exhibitions of this emotion. Pliny records (*Natural History* IX. 8. 25) that a boy living near Naples struck up a friendship with a dolphin that would come to shore when summoned and allow him to ride on its back, a routine that lasted for several years. In time, the boy died of natural causes, and the dolphin would come back “sadly, and in the manner of a mourner, to their usual meeting place, and it died of longing, as no one could doubt” (*tristis et maerenti similis ipse quoque, quod nemo dubitaret, desiderio expiravit*, *Natural History* IX. 8. 25). Although Pliny claims to be reluctant to repeat such a tale, he shortly after offers another similar tale (IX. 10. 33). When a king on one occasion trapped a dolphin, its comrades gathered around, begging the king for mercy amidst an obvious show of grief, until the king released the animal.

The capacity of the dolphin to experience grief is commented upon as well by Plutarch (*On the Cleverness of Animals* 985A-B). Once, he relates, a youth released a school of dolphins from a net in which they had been entrapped. Shortly after, the dolphins reciprocated by saving the youth from drowning when his boat capsized, bearing him up and carrying him to shore. When he later died and his family erected his pyre at the water's edge, a number of dolphins appeared offshore, "as though making it clear," Plutarch maintains, "that they had come for the funeral, and remaining until it was completed" (ὥσπερ ἐπιδείκνυντες ἑαυτοῦν ¹/₄kontaj TMp[^] t*ij* taff*j*, ka[^] parame...nantej ἔcri οὐ συνετελέσθησαν, 985B).

It is interesting to note that Pliny and Plutarch identify the emotion of grief in those animals, elephants and dolphins, most frequently

singled out by ancient naturalists and philosophers for their impressive mental endowments. It is noteworthy as well that their accounts of grieving animals challenge the intellectual presuppositions upon which the Stoic denial of emotions to non-human species was predicated, while at the same time relying heavily upon the use of anecdote and anthropomorphization. In each author, elephants and dolphins appear to exhibit the subcategories of grief that the Stoics identified as “pity” (the grief that recognizes undeserved suffering), “distress” (the grief that endures and increases) and “anguish” (the grief that causes pain in the individual enduring it). Moreover, both Pliny and Plutarch appear to reject the claim that non-human animals cannot evaluate their own circumstances and cannot therefore have any conception of their own emotional status. Not only, in their view, is grief not to be viewed as an emotion experienced by man alone of animals, but non-human species appear to experience it in all of its various manifestations as these were categorized by the Stoics.

Our examination of Stoic and Aristotelian theories of emotion suggests that the ancients gave considerable thought to the emotional states of non-human animals, more so than one might conclude from the lack of attention that the topic has received in studies of ancient theories of emotion. Some striking parallels emerge when ancient accounts of the emotional states of non-humans are set beside modern ethological and philosophical accounts of the origins and operation of the emotions, both in terms of theoretical considerations on the genesis and function of the emotions and of examples chosen to argue for the presence of emotions in non-human species. Researchers who defend the position that non-human animals experience a range of emotional states are quick to acknowledge that their position is tentative and still depends heavily upon analogy, anecdote and anthropomorphization, the same techniques that have rendered ancient discussion on animal emotions suspect in the eyes of some critics who point out the potential danger in assuming, as ancient sources often did in their considerations of the emotions of non-human animals, that a given emotion will manifest itself in the same manner in a non-human animal as it does in the case of a human being. It may after all be incorrect to conclude that grief in a dolphin *looks like* grief in a human being.

Biologist Marc Bekoff, who argues that some animal species are capable of emotions that include love, grief, joy and shame, admits that ethologists are still not certain how cognition and emotion are connected, or how a cognitive element may function in the production of animal emotions. Nor, he acknowledges, are ethologists yet certain what species are capable of consciously reflecting on their emotional

states.¹³ Bekoff and some other ethologists argue, however, that since humans and other animal species have analogous brain structures and share neurochemicals that are involved in the production of emotions in human beings, it would seem logical that non-human animals share some of the emotional states that are identifiable in humans.¹⁴ In light of such facts, while acknowledging that caution is required in drawing conclusions regarding the emotional states of non-humans, Bekoff feels it is the task of scientists to prove that non-human animals do *not* have emotions rather than that they do. Moreover, he considers it a matter of the utmost importance to understand the emotional states of other species since proof of their existence in our animal brethren has profound implications for human moral conduct. As Bekoff expresses it, in terms that closely mirror Bentham's sentiment, if non-human species are found to be capable of emotions, what must matter to human beings is not their sentience but their suffering.¹⁵

Not all biologists have so sanguine a view of the possibility of a complex and varied emotional life in non-human animals as does Bekoff. Marc D. Hauser attributes fear and anger to non-humans, but questions their capacity to experience other emotions that he feels depend on a sense of self and that entail an understanding of right and wrong and of good and bad, those emotions that he labels "normative" because they involve some moral judgment.¹⁶ These, in his view, include grief, guilt, shame, sympathy and empathy. Hauser considers such emotions impossible for non-humans because "they lack a fundamental tool: self-awareness."¹⁷ In his view, animals cannot experience grief, for example, because they are not aware that their own circumstances or those of others are grievous, and they would need to possess some conception of living and non-living to make that assessment. Hauser adopts here a markedly neo-Stoic position in arguing that at least some emotions are restricted to "man alone of animals" precisely because they are dependent upon cognitive capacities beyond those possessed by most if not all non-human animal species.

Some philosophers have advanced arguments concerning emotions in non-human animals that mirror the rather generous position of ethologists like Bekoff who ascribes a fairly wide range of emotional states to other species. Philosopher Martha C. Nussbaum challenges the Stoic denial of emotions to non-human animals, specifically as this position was articulated by Chrysippus, which she charges, in language reminiscent of Plutarch, "flies in the face of our experiences of communality between ourselves and many animals."¹⁸ Against the Stoics, Nussbaum allows animals what she terms "object-directed intentionality," which entails a set of beliefs about the world: that is,

emotions are *about* something, and animals, like human beings, subject the world to appraisal through emotions.¹⁹ She argues that animal emotions may function on a non-linguistic and even on a non-rational level, but she is not totally clear as to what cognitive capacities she believes non-humans possess that enable them to appraise or reflect on their world through emotions, and she admits that some emotions, among which she numbers shame, hope, guilt and compassion, may be restricted to man alone.²⁰

The emotion of grief in non-human animals has attracted the attention of modern researchers as strongly as it did that of ancient writers, and numerous instances of apparent grieving behaviors in non-human species have been recorded by ethologists and are frequent subject matter in the popular press in stories intended to point out what seem to be amazing parallels between human and non-human animal behavior.²¹ What appears to be grieving behavior in elephants has been extensively documented. Wildlife researcher Cynthia Moss, who spent thirteen years studying the social behavior of a family of free-ranging elephants in Kenya, records that elephants regularly stop to examine the bones and carcasses of other elephants, frequently covering the bodies of newly deceased elephants with dirt and branches and picking up and turning over the bones of long-dead elephants, while demonstrating little interest in the remains of other species. Such behavior led Moss to conclude that elephants not only demonstrate a number of the behaviors associated with grief in humans, but that they have some concept of death.²² Her conclusions challenge the view of Hauser that animals cannot distinguish the living from the not-living and have no sense of self or others, a capacity which Hauser had declared requisite for the operation of “normative” or values-based emotions.

Reports of grief in dolphins, the species so frequently cited in ancient sources as capable of exhibiting grief, appear relatively infrequently in ethological literature when compared to reports of grieving elephants, a circumstance that may arise from the fact that ethologists prefer evidence derived from observation in the wild rather than from captive animals or from laboratory situations. Dolphin researchers have, however, recorded attempts by adult dolphins to raise up the bodies of dead infant dolphins. Moreover, when one member of a pair of dolphins that have lived together in captivity dies, trainers have observed that the surviving animal may become inactive and refuse food, in some cases dying of starvation not long after the death of its companion. Some ethologists have not hesitated to declare such behavior a manifestation of grief.²³

Although the ancient narratives of animals in the throes of emotion examined above remain little more than anecdotes with a minimum of interpretation supplied by the authors who relate them, there stand behind them a number of ideas concerning the operation and expression of the emotions that have parallels in the current philosophical and psychological discourse. Most striking is the emphasis, in both ancient and modern accounts, on the intellectual component of emotions and on the belief that emotions are triggered subsequent to what are variously termed judgments, beliefs or motivations of some kind: on this model, emotions are to be properly viewed as more *considered* than *sudden*. Firmly in this tradition is Nussbaum's study of the emotions, which offers a thoroughgoing critique of the Stoic denial of emotions to non-human animals. At the outset of her work she remarks, "Emotions, I shall argue, involve judgments about important things. . . ."²⁴ Nussbaum sets forth a cognitive theory of the operation of the emotions according to which emotions are viewed as possessing intellectual content: emotions force individuals to evaluate their situations. Her critique of the Stoic position on emotions as forms of judgments centers upon the school's denial to non-human animals of the intellectual tools that would allow them to appraise their world through emotions. She argues against the Stoic stance, "Experimentalists give us reason to conclude that animals are emotional, and that their emotions, like ours, are appraisal of the world, as it relates to their well-being."²⁵ The issue of appraisal is still prominent in cognitive theories of the emotions, which view emotions as interpretations of one's psychological states, an operation which, in the view of the Stoics, is not possible for non-human animals due to their limited intellectual capacities.²⁶

Just as modern defenses of the position that non-human animals experience emotions still rely rather heavily on anecdotal evidence, as we have noted, so too do modern denials of emotions in non-humans resurrect Stoic assertions that, because true emotions require cognitive skills beyond those found in non-human animals, other species cannot be included in the sphere of human moral concern because their actions are devoid of moral content. In this view, human beings do not need to take into account the fear, grief or anger that our treatment of other species might engender, so that we may without qualms ignore Bentham's dictum. The positions taken by philosophers on the potential moral content of animal emotions, and on how the morality of animal actions that appear to suggest the operation of emotions is to be assessed, are complex. Bekoff is comfortable in maintaining that some animals exhibit behaviors that suggest, for example, a sense of honor and fairness in dealing with conspecifics, but he stops short of

attributing to non-human animals what might be termed ethical systems.²⁷ Some philosophers of cognition, in contrast, demand higher levels of intellectual sophistication in non-humans before they are willing to attribute moral behavior to them. Philosopher Mark Rowlands, for example, argues that an animal can be what he calls a “moral subject,” that is, he allows that non-humans may exhibit behaviors that possess moral content. They can be motivated to act by reasons that may be considered to be “moral,” and they can exhibit some emotions that may have moral content.²⁸ Yet he denies that non-human animals can be “moral agents” in that they cannot be held responsible for their actions, a position held by the Stoics. Similarly, Aristotle had articulated the view (*Nicomachean Ethics* 1105a27–35) that an individual can be virtuous only if he knows that he is acting for virtuous reasons and has chosen to act as he has from a desire to be virtuous. The ostensibly virtuous actions performed by non-human animals cannot in fact have moral content, in this view, because they do not issue from a desire to act virtuously and from a knowledge that the resulting actions are virtuous.

The Aristotelian connection between emotion and intention is taken up by philosopher B. A. Dixon in her work *Animals, Emotion and Morality: Marking the Boundary*. Dixon requires that an “intentional state” be present before an animal’s actions that arise from an apparent emotion can be judged to have moral content. That is, an animal must *intend* to be virtuous in exhibiting, to cite her example, what appears to be compassion. She doubts that any non-human species can be compassionate because this emotion requires an individual to make judgments about fault and negligence in other individuals.²⁹ An individual can be compassionate only if he can judge what constitutes a significant loss to those who suffer. If he is capable of such judgments, he experiences what she terms “morally-laden emotions” and is therefore a moral being.³⁰ She denies to non-human animals the insight and clarity needed to “step back,” so to speak, and thereby to appreciate the moral relevance of another’s situation, a skill that she considers not innate in a being but developed from reflection and experience.

When Dixon speaks of judgments, appraisals, beliefs and assessing situations, she conjures the Stoics. Her conclusion from her line of argument, however, is decidedly non-Stoic. Noting (without reference to classical antiquity) history’s preoccupation with isolating examples of human superiority that arise from human uniqueness, she argues that possessing morally laden emotions does not make humans better than non-human animals. To state that man alone of animals experiences certain emotions signifies merely that non-human animals

do not take part in some human moral practices. Uniqueness, she maintains, does not entail superiority but merely differentness.³¹ We cannot conclude from any evidence of differentness that we are justified in treating other animals as we will. Dixon's comments, which address the intersection between emotion and intellect that figures prominently in both ancient and modern discussions of the operation of the emotions and has been discussed in the present chapter, call into question the validity of all "man alone of animals" claims advanced since classical antiquity and at the same time reject the premise of moral superiority that bolsters modern assertions of "human exceptionalism" like that of Wesley J. Smith. We have left claims that man alone of animals is an emotional being to the final chapter of our study because, as extensive research into the intellectual faculties of our animal brethren has rendered it increasingly difficult for us to think like Stoics, our supposed uniqueness as emotional animals has been our last best hope of uniqueness among animalkind. The work of philosophers like Dixon and ethologists like Bekoff makes us come to grips with the possibility that no "man alone of animals" claim can stand unchallenged.

Notes

- 1 On Renehan, see Preface, pp. viii–ix.
- 2 On Midgley, see Introduction, pp. 6–7.
- 3 Marian Stamp Dawkins, *Through Our Eyes Only? The Search for Animal Consciousness* (Oxford: Freeman, 1993) 142, calls attention to the deceptive phenomenon of "smiling chimpanzees" as an illustration of the need to observe the actions of another animal species rather than just facial expressions when attempting to assess its emotional state.
- 4 Masson and McCarthy, *When Elephants Weep* xiii. Masson has himself been criticized for his reliance on anthropomorphizing anecdotes. Typical is the criticism of Hauser, *Wild Minds* 5–7, who belittles Masson as a Sanskritist by training whose criticisms of science are "replete with disturbing and confusing assertions" (5). Hauser counters that while anecdotes are "not useless" (5), the scientist demands that they be backed up with experiment and observation.
- 5 Writing of his own frustrations as a young ethologist grappling with the task of labeling what appeared to him to be emotional states in chimpanzees, primatologist Frans deWaal, *Good Natured* 18, comments, "Whereas terms related to aggression, violence and competition never posed the slightest problem, I was supposed to switch to dehumanized language as soon as the affectionate aftermath of a fight was the issue." Carl Safina, *Beyond Words: What Animals Think and Feel* (New York: Henry Holt, 2015) 27, offers a sobering appraisal of the dangers to a scientist's reputation that any statement attributing emotions to non-human species entailed as recently as the 1970s, "... Suggesting that other animals can feel *anything* wasn't just a conversation stopper: it was a career killer." Safina reminds us that human emotions are after

all animal emotions, and he observes (29), on the claim that man alone of animals is capable of emotions, “Simply deciding that other animals can’t have emotions that humans feel is a cheap way to get a monopoly on the world’s feelings and motivations.” Both deWaal and Safina view the dangers involved in attributing emotions to non-human animals in the context of the influence on animal studies that behaviorist psychology wielded which maintained that behaviors, in humans and in other animals, can be explained as conditioned responses to external stimuli, so that one does not have to have to take recourse in any belief in emotions to account for such responses. In this view, it is dangerous to speculate on the mental experiences of other species. The waning of the influence of behaviorist theory and of its chief exponent, B. F. Skinner, has made the conclusions of cognitive ethology more acceptable in the academic and scientific communities and has helped to legitimize the study of animal emotions.

- 6 David Konstan, *Emotions* ix–xi, 91–110. Konstan’s sole observation on the emotions of non-human animals in this work is his remark (xii) that Aristotle and other Greek thinkers did not ascribe emotions to children or non-human animals. See also David Konstan, “Shame in Ancient Greece,” *Social Research* 70, 4 (2003) 1031–1060. Shame in non-human animals is seldom touched on in considerations of the emotion in the ancient context, but see Stephen T. Newmyer, “Ancient and Modern Views of the Expression of Shame in Animals,” *JAE* 2, 1 (2012) 87–97.
- 7 Konstan, *Emotions* 260.
- 8 Konstan, *Emotions* 27. Similarly, Gisela Striker, “Emotions in Context: Aristotle’s Treatment of the Emotions in the *Rhetoric* and His Moral Psychology,” in Amélie Oksenberg Rorty, ed., *Essays in Aristotle’s Rhetoric* (Berkeley: University of California Press, 1996) 286, notes that one might have expected Aristotle’s discussion of the emotions to have been contained in *De Anima* (*On the Soul*). She maintains that while the Greek term *πάθος* (*pathos*) means both “emotion” and “passion,” Aristotle never offers a clear definition of what he means by *πάθος*, and that therefore we cannot consider his treatment of the emotions in the *Rhetoric* to be “scientific psychology” (287). But since Aristotle’s intention in the *Rhetoric* was simply to instruct the reader in the art of rousing emotions in one’s listeners, he did not consider it necessary to provide any explanation as to why persons should feel one or another emotion.
- 9 For a detailed discussion of the Stoic doctrine that the emotions are to be viewed as judgments, see Richard Sorabji, *Emotions and Peace of Mind: From Stoic Agitation to Christian Temptation* (Oxford: Oxford University Press, 2000). Sorabji (121–132) notes that the later Stoic Posidonius (ca. 135–ca. 51 bce) held that judgments are not always necessary for the formation of emotions, and that therefore children and non-human animals were capable of emotions, especially those associated with pleasure and anger. See also Margaret R. Graver, *Stoicism and Emotion* (Chicago: University of Chicago Press, 2007).
- 10 It is interesting to note, in light of the rather elaborate division of the types of grief in Stoic thought, that Aristotle does not include a consideration of grief in the *Rhetoric*. Perhaps, since that work was intended to instruct speakers on how to arouse in an audience emotions that were desirable toward succeeding in a court of law, he did not consider it useful to include grief among these. Konstan, *Emotions* 245, observes that Aristotle employed the word *λύπη* (*lupē*), which the Stoics employed in the sense of “grief,” to signify “pain,” and that Aristotle regards it as the opposite to pleasure. That is, the concept of grief is not present in Aristotle’s employment of the term.

- 11 On Plutarch's case for the presence of reason in non-human animals, see above, [Chapter 4](#), pp. 63–67, and Newmyer, *Animals, Rights and Reason* 10–47.
- 12 On Pliny's claim that "man alone of animals" is capable of grief, see above, [Chapter 3](#), pp. 37–38. Mary Beagon, *Roman Nature* 142, expresses reluctance to ascribe to Pliny the view that non-human animals are capable of emotions, observing, "There is no evidence that he really identified the qualities observed in animals with the human intellect and the human emotions." She contends rather that Pliny is always careful to qualify statements that appear to suggest that human and non-human animals are alike in one or another respect, stating, for example, that non-human animals exhibit behaviors or feelings that are "sort of" like those seen in human beings.
- 13 Marc Bekoff, "Animal Emotions: Exploring Passionate Natures," *BioScience* 50 (2000) 862–864.
- 14 Marc Bekoff, *The Smile of a Dolphin: Remarkable Accounts of Animal Emotions* (New York: Discovery Books, 2000) 24. Bekoff, *The Emotional Lives of Animals* (New York: New World Library, 2007) 121–124, argues that anecdotes are valid as data in cognitive ethological investigation because, taken together, stories become useful toward stimulating further research. He likewise defends the need to anthropomorphize in the study of animal behavior since we really have no useful alternative and our understanding of the nature of animalkind would be diminished if we were to forego its use.
- 15 Bekoff, *The Emotional Lives of Animals* 134.
- 16 Hauser, *Wild Minds* 213.
- 17 Hauser, *Wild Minds* 224.
- 18 Martha C. Nussbaum, *Upheavals of Thought: The Intelligence of Emotions* (Cambridge: Cambridge University Press, 2001) 91. It is interesting to note that Nussbaum (89) cites Pliny's tale of the elephants in Pompey's arena as a valid example of grief in elephants, suggesting that she considers anecdotal evidence to be of value.
- 19 Nussbaum 119. Konstan, *Emotions* 22, faults Nussbaum for ascribing emotions to non-human animals but he does not explain the reason for his objection.
- 20 Nussbaum 119.
- 21 Bekoff, *The Emotional Lives of Animals* 63, comments on grief in non-human animals. "There is no question that animals grieve," and he maintains that at least some species demonstrate the "universal signs of grief," including loss of appetite, withdrawal from peers, inability to be consoled by others, and loss of interest in sex.
- 22 Cynthia Moss, *Elephant Memories: Thirteen Years in the Life of an Elephant Family* (New York: William Morrow, 1988) 269–273.
- 23 Masson and McCarthy, *When Elephants Weep* 94, report on this behavior and conclude that it is clear evidence of grief in dolphins.
- 24 Nussbaum 19.
- 25 Nussbaum 119.
- 26 Sorabji, *Emotion and Peace of Mind* 29–30, notes that, according to the Stoics, each emotion entails two separate judgments: one, that a situation is good or bad; and two, that it is appropriate to act. Distress, for example, is a judgment that bad is near and that it is appropriate to feel a sinking. A helpful discussion of cognitive theories of emotion and of the place that appraisal holds in them in current psychological theory is offered in Mick Power and Tim Dagleish,

Cognition and Emotion: From Order to Disorder (Hove and New York: Psychology Press, 2008) 57–99.

27 Bekoff, *The Emotional Lives of Animals* 86–89.

28 Mark Rowlands, *Can Animals Be Moral?* (New York: Oxford University Press, 2012) 32–36.

29 B. A. Dixon, *Animals, Emotion and Morality: Marking the Boundary* (Amherst, NY: Prometheus Books, 2008) 82.

30 Dixon 9.

31 Dixon 252.

Bibliography

Texts Consulted

- DK = Hermann Diels and Walther Kranz, eds., *Die Fragmente der Vorsokratiker*, 6th edn. (Berlin: Weidmann, 1951–1952).
- SVF = Johannes von Arnim, ed., *Stoicorum Veterum Fragmenta* (Stuttgart: Teubner, 1964; reprint of the edition of 1905).
- Balme, D. M. and Allan Gotthelf, eds., *Aristotle: Historia Animalium, Volume I: Books I–X: Text* (Cambridge: Cambridge University Press, 2002).
- Bouffartigue, Jean, Michel Patillon, Alain Segonde and Luc Brisson, eds., *Porphyre: De l'Abstinence* (Paris: Les Belles Lettres, 1977–1995).
- Cherniss, Harold and William C. Helmbold, eds., *Plutarch: Moralia XII, with an English Translation* (Cambridge: Harvard University Press, 1957).
- Defradas, Jean, *Plutarque: Le Banquet des Sept Sages*, Texte et Traduction avec une Introduction et des Notes (Paris: Klincksieck, 1954).
- Freese, John Henry, *Aristotle: The 'Art' of Rhetoric*, with an English Translation (Cambridge: Harvard University Press, 1947).
- Graham, Daniel W., *The Texts of Early Greek Philosophy: The Complete Fragments and Selected Testimonies of the Major Presocratics* (Cambridge: Cambridge University Press, 2010).
- Gummere, Richard M., *Seneca ad Lucilium Epistulae Morales*, with an English Translation (London: Heinemann, 1934).
- Helmreich, Georg, ed., *Galen de Usu Partium Libri XVII* (Leipzig: Teubner, 1907).
- Lamb, W. R. M., ed., *Plato: Laches, Protagoras, Meno, Euthydemus*, with an English Translation (Cambridge: Cambridge University Press, 1964).
- Long, H. S., *Diogenes Laertii Vitae Philosophorum* (Oxford: Clarendon Press, 1964).

- Marchant, E. C., ed., *Xenophontis Opera Omnia II* (Oxford: Clarendon Press, 1967).
- Miller, Walter, *Cicero: De Officiis*, with an English Translation (Cambridge: Harvard University Press, 1961).
- Peck, A. L., *Aristotle: Parts of Animals*, with an English Translation (London: Heinemann, 1937).
- Rackham, H., *Aristotle: The Nicomachean Ethics*, with an English Translation (Cambridge: Harvard University Press, 1934).
- , *Aristotle: Politics*, with an English Translation (London: Heinemann, 1959).
- , *Cicero: De Finibus Bonorum et Malorum*, with an English Translation (Cambridge: Harvard University Press, 1961).
- , *Cicero: De Natura Deorum, Academica*, with an English Translation (Cambridge: Harvard University Press, 1961).
- , *Pliny: Natural History II: Libri III–VII*, with an English Translation (Cambridge: Harvard University Press, 1969).
- Terian, Abraham, *Philonis Alexandrini de Animalibus: The Armenian Text with an Introduction, Translation and Commentary* (Chico, CA: Scholars Press, 1981).

Secondary Literature

- Abel, Reuben, *Man Is the Measure: A Cordial Invitation to the Central Problems of Philosophy* (New York: Free Press, 1976).
- Adler, Mortimer J., *The Difference of Man and the Difference It Makes* (New York: Holt, Rinehart and Winston, 1967).
- Angell, Tony, *Ravens, Crows, Magpies, and Jays* (Seattle: University of Washington Press, 1978).
- Barrett, Harold, *The Sophists* (Novato, CA: Chandler and Sharp, 1987).
- Beagon, Mary, *The Elder Pliny on the Human Animal: Natural History, Book 7*, translated and with an Introduction and Historical Commentary (Oxford: Clarendon Press, 2005).
- , *Roman Nature: The Thought of Pliny the Elder* (Oxford: Clarendon Press, 1992).
- Becchi, Francesco, “Biopsicologia e Giustizia in Teofrasto e Plutarco,” *Prometheus* 27 (2001), 119–135.
- Begemihl, Bruce, *Biological Exuberance: Animal Homosexuality and Natural Diversity* (London: Profile Books, 1999).
- Bekoff, Marc, “Animal Emotions: Exploring Passionate Natures,” *BioScience* 50 (2000) 861–871.

- , *The Emotional Lives of Animals* (New York: World Library, 2007).
- , *The Smile of a Dolphin: Remarkable Accounts of Animal Emotions* (New York: Discovery Books, 2000).
- Bell, Jeremy and Michael Naas, eds., *Plato's Animals: Gadflies, Horses, Swans, and Other Philosophical Animals* (Bloomington: University of Indiana Press, 2015).
- Bickerton, Derek, *Adam's Tongue: How Humans Made Language, How Language Made Humans* (New York: Hill and Wang, 2009).
- Boddice, Rob, "The End of Anthropocentrism," in Rob Boddice, ed., *Anthropocentrism: Humans, Animals, Environments* (Leiden and Boston: Brill, 2011) 1–18.
- Bréchet, Christophe, "La Philosophie de Gryllos," in Jacques Boulogne, ed., *Les Grecs et les Animaux: Le Cas Remarquable de Plutarque* (Lille: Collection UL3, 2005) 43–61.
- Brennan, Tad, *The Stoic Life: Emotions, Duties, and Fate* (Oxford: Clarendon Press, 2005).
- Brink, C. O, "Οἰκείωσις and Οἰκειότης": Theophrastus and Zeno on Nature in Moral Theory," *Phronesis* 1 (1955–1956) 123–145.
- Cairns, Douglas, *AIDŌS: The Psychology and Ethics of Shame in Ancient Greek Literature* (Oxford: Oxford University Press, 1993).
- Carruthers, Peter, *The Animals Issue: Moral Theory in Practice* (Cambridge: Cambridge University Press, 1992).
- Cartledge, *The Greeks: A Portrait of Self and Others* (Cambridge: Cambridge University Press, 1993).
- Chomsky, Noam, *Language and Problems of Knowledge* (Cambridge: MIT Press, 2001).
- Coby, Patrick, *Socrates and the Sophistic Enlightenment: A Commentary on Plato's Protagoras* (Lewisburg, PA: Bucknell University Press, 1987).
- Cohn, Beth, ed., *Not the Classical Ideal: Athens and the Construction of the Other in Greek Art* (Leiden: Brill, 2000).
- Cole, Thomas, *Democritus and the Sources of Greek Anthropology* (Atlanta: Scholars Press, 1990; reprint of the edition of 1967).
- Curtius, Ernst Robert, *European Literature and the Latin Middle Ages*, transl. by Willard Trask (Princeton: Princeton University Press, 1973).
- D'Agostino, Vittorio, "Sulla Zoopsicologia di Plutarco, *Archivo Italiano di Psicologia* 11 (1933) 21–42.
- Dawkins, Miriam Stamp, *Through Our Eyes Only? The Search for Animal Consciousness* (Oxford: Freeman, 1993).
- DeGrazia, David, *Taking Animals Seriously: Mental Life and Moral Status*

- (New York: Cambridge University Press, 1996).
- De Romilly, Jacqueline, *The Great Sophists of Periclean Athens*, trans. by Janet Lloyd (Oxford: Clarendon Press, 1992).
- De Waal, Frans, *The Age of Empathy: Nature's Lessons for a Kinder Society* (New York: Harmony Books, 2009).
- , *Good Natured: The Origins of Right and Wrong in Humans and Other Animals* (Cambridge: Harvard University Press, 1996).
- Dickerman, Sherwood Owen, *De Argumentis Quibusdam apud Xenophontem, Platonem, Aristotelem Obviis e Structura Hominis et Animalium Petitis* (Dissertation: Halle, 1909).
- , "Some Stock Illustrations of Animal Intelligence in Greek Psychology," *TAPhA* 42 (1911) 123–130.
- Dierauer, Urs, "Raison ou Instinct? Le Développement de la Zoopsychologie Antique," in Barbara Cassin and Jean-Louis Labarrière, eds., *L'Animal dans l'Antiquité* (Paris: Vrin, 1997) 3–30.
- , *Tier und Mensch im Denken der Antike: Studien zur Tierpsychologie, Anthropologie und Ethik* (Amsterdam: Grüner, 1977).
- , "Das Verhältnis von Mensch und Tier im griechisch-römischen Denken," in Paul Münch and Rainer Walz, eds., *Tiere und Menschen: Geschichte und Aktualität eines prekären Verhältnisses* (Paderborn: Schöningh, 1998) 37–85.
- Dixon, B. A., *Animals, Emotion and Morality: Marking the Boundary* (Amherst, NY: Prometheus Books, 2008).
- Dombrowski, Daniel A., *Babies and Beasts: The Argument from Marginal Cases* (Urbana and Chicago: University of Illinois Press, 1997).
- , "Philosophical Vegetarianism and Animal Entitlements," in Gordon Lindsay Campbell, *The Oxford Handbook of Animals in Classical Thought and Life* (Oxford: Oxford University Press, 2014) 537–541.
- , *The Philosophy of Vegetarianism* (Amherst: University of Massachusetts Press, 1984).
- , "Porphyry and Vegetarianism: A Contemporary Philosophical Approach," *ANRW* II, 36, 2 (1987) 774–791.
- , "Vegetarianism and the Argument from Marginal Cases," *JHI* 45 (1984) 141–143.
- Dyroff, Adolf, *Die Tierpsychologie des Plutarchos von Chaironeia* (Würzburg: Bonitas-Bauer, 1897).
- Edelstein, Ludwig, "Aristotle and the Concept of Evolution," *Classical Weekly* 37 (1944) 148–150.
- Engberg-Pedersen, Troels, *The Stoic Theory of Oikeiosis: Moral Development and Social Interaction in Early Stoic Philosophy* (Aarhus:

- University of Aarhus Press, 1990).
- Fögen, Thorsten, "Animal Communication," in Gordon Lindsay Campbell, ed., *The Oxford Handbook of Animals in Classical Thought and Life* (Oxford: University Press, 2014) 216–232.
- , "Antike Zeugnisse zu Kommunikationsformen von Tieren," *Antike und Abendland* 53 (2007) 39–75.
- Fortenbaugh, William W., "Aristotle: Animals, Emotion, and Moral Virtue," *Arethusa* 4 (1971) 137–165.
- Fouts, Roger, *Next of Kin: What Chimpanzees Have Taught Me about Who We Are* (New York: Morrow, 1997).
- French, Roger, *Ancient Natural History: Histories of Nature* (London and New York: Routledge, 1994).
- French, Roger and Frank Greenaway, eds., *Science in the Early Roman Empire: Pliny the Elder, His Sources and Influence* (Totowa, NJ: Barnes and Noble, 1986).
- Gauthier, David, *Morals by Agreement* (Oxford: Clarendon Press, 1986).
- Gera, Deborah Levine, *Ancient Greek Ideas on Speech, Language, and Civilization* (Oxford: Oxford University Press, 2003).
- Gigon, Olof, *Kommentar zum ersten Buch von Xenophons Memorabilien* (Basel: Friedrich Reinhardt, 1953).
- Goodale, Greg, *The Rhetorical Invention of Man: A History of Distinguishing Humans from Other Animals* (Lanham, MD: Lexington Press, 2015).
- Graver, Margaret R., *Stoicism and Emotion* (Chicago: University of Chicago Press, 2007).
- Gross, Karl, "Galens teleologische Betrachtung der menschlichen Hand in De usu partium," *Sudhoffs Archiv* 58 (1974) 13–24.
- Gruen, Erich S., *Rethinking the Other in Antiquity* (Princeton: Princeton University Press, 2011).
- Guthrie, W. K. C., *In the Beginning: Some Greek Views on the Origins of Life and the Early State of Man* (Ithaca: Cornell University Press, 1957).
- , *The Sophists*, Vol. 3 of *A History of Greek Philosophy* (Cambridge: Cambridge University Press, 1969–1971).
- Harden, Alastair, *Animals in the Classical World: Ethical Perspectives from Greek and Roman Texts* (Basingstoke: Palgrave Macmillan, 2013).
- Hauser, Marc D., *Wild Minds: What Animals Really Think* (New York: Henry Holt, 2000).
- Haussleiter, Johannes, *Der Vegetarismus in der Antike* (Berlin: Töpelmann, 1935).

- Heath, John, *The Talking Greeks: Speech, Animals, and the Other in Homer, Aeschylus and Plato* (Cambridge: Cambridge University Press, 2005).
- Hunt, Gavin, "Manufacture and Use of Hook-tools by New Caledonian Crows," *Nature* 379 (1996) 249–251.
- Hunter, Lynette, ed., *Toward a Definition of Topos: Approaches to Analogical Reasoning* (London: Macmillan, 1991).
- Hussey, Edward, *The Presocratics* (New York: Scribners, 1972).
- Isnardi Parente, Margherita, "Radici di una Filosofia non Antropocentrica," *Biblioteca della Libertà* 23 (1988) 73–84.
- Kleczkowska, Katarzyna, "Those Who Cannot Speak: Animals as Others in Ancient Greek Thought," *Maska* 24 (2014) 97–108.
- Konstan, David, *The Emotions of the Ancient Greeks: Studies in Aristotle and Classical Literature* (Toronto: University of Toronto Press, 2005).
- , "A Pig Convicts Itself of Unreason: The Implicit Argument of Plutarch's *Gryllus*," *Hyperboreus* 16–17 (2010–2011) 371–385.
- , "Shame in Ancient Greece," *Social Research* 70, 4 (2003) 1031–1060.
- Körner, Otto, *Die homerische Tierwelt* (Munich: Bergmann, 1930).
- Labarrière, Jean-Louis, "De la Phronesis Animale," in Daniel Devereux and Pierre Pellegrin, eds., *Biologie, Logique et Métaphysique chez Aristote* (Paris: Éditions du Centre National de la Recherche Scientifique, 1990) 405–428.
- , "Logos Endiathetos et Logos Prophorikos dans la Polémique entre la Portique et la Nouvelle-Académie," in Barbara Cassin and Jean-Louis Labarrière, eds., *L'Animale dans l'Antiquité* (Paris: Vrin, 1997) 259–279.
- Lanata, Giuliana, "Antropocentrismi," in S. Castignone and G. Lanata, eds., *Filosofi e Animali nel Mondo Antico* (Pisa: Edizioni ETS, 1994) 17–49.
- Lau, Dieter, *Der Mensch als Mittelpunkt der Welt: Zu den geistesgeschichtlichen Grundlagen des anthropozentrischen Denkens* (Aachen: Shaker Verlag, 2000).
- Levi, Adolfo, "Studies in Protagoras," *Philosophy* 15 (1940) 147–167.
- Lloyd, G. E. R., *Polarity and Analogy: Two Types of Argumentation in Early Greek Thought* (Cambridge: Cambridge University Press, 1966).
- Longo, Oddone, "La Mano dell' Uomo da Aristotele a Galeno," *QUCC* 66 (2000) 7–30.
- Lovejoy, Arthur O., *The Great Chain of Being* (Cambridge: Harvard University Press, 1936).
- Maguire, Joseph P., "Protagoras . . . or Plato? II. The Protagoras,"

- Marx, August, *Griechische Märchen von dankbaren Tieren und Verwandtes* (Stuttgart: Kohlhammer, 1889).
- Masson, Jeffrey Moussaieff and Susan McCarthy, *When Elephants Weep: The Emotional Lives of Animals* (New York: Delacorte Press, 1996).
- Matelli, Elisabetta, “ΕΝΔΙΑΘΕΤΟΣ e ΠΡΟΦΟΡΙΚΟΣ ΛΟΓΟΣ: Note sulla Origine della Formula e della Notizione,” *Aevum* 66 (2004) 43–70.
- Midgley, Mary, *Beast and Man: The Roots of Human Nature* (Oxford: Routledge, 2002).
- Morris, C. W., “Contractarianism,” in L. C. Becker and C. B. Baker, eds., *Encyclopedia of Ethics I* (New York and London: Routledge, 2001) 320–325.
- Moss, Cynthia, *Elephant Memories: Thirteen Years in the Life of an Elephant Family* (New York: William Morrow, 1988).
- Mühl, Max, “Der λόγος ἐνδιάθετος und λόγος προφορικός von der älteren Stoa bis zur Synode von Sirmium 351,” *Archiv für Begriffsgeschichte* 17 (1962) 7–56.
- Napier, John, *Hands* (New York: Pantheon Books, 1980).
- Newmyer, Stephen T., “Animal *Philanthropia* in the *Convivium Septem Sapientium*,” in José Ribiero Ferreira, Delfim Leão, Manuel Tröster and Paula Barata Dias, eds., *Symposion and Philanthropia in Plutarch* (Coimbra: Centro de Estudos Clássicos e Humanísticos da Universidade de Coimbra, 2009) 497–507.
- , *Animals, Rights and Reason in Plutarch and Modern Ethics* (New York and London: Routledge, 2006).
- , “Animals in Plutarch,” in Mark Beck, ed., *A Companion to Plutarch* (Oxford: Blackwell, 2014) 223–234.
- , “Being the One and Becoming the Other: Animals in Ancient Philosophical Schools,” in Gordon Lindsey Campbell, ed., *The Oxford Handbook of Animals in Classical Thought and Life* (Oxford: Oxford University Press, 2014) 507–534.
- , “Paws to Reflect: Ancients and Moderns on the Religious Sensibilities of Animals,” *QUCC* 75, 3 (2003) 111–119.
- , “Philo on Animal Psychology: Sources and Moral Implications,” in Samuel Kottek and Manfred Horstmanshoff, eds., *From Athens to Jerusalem: Medicine in Hellenized Jewish Lore and Early Christian Literature* (Rotterdam: Erasmus, 2000) 143–155.
- , “Plutarch on Justice toward Animals: Ancient Insights on a Modern Debate,” *Scholia: Studies in Classical Antiquity* N. S. 1 (1992) 38–54.
- , “Plutarch on the Moral Grounds for Vegetarianism,” *CO* (1995)

- , “Ancient and Modern Views of the Expression of Shame in Animals,” *JAE* 2, 1 (2012) 87–97.
- , “Speaking of Beasts: the Stoics and Plutarch on Animal Reason and the Modern Case against Animals,” *QUCC N. S.* 63, 3 (1999) 99–110.
- , “Tool Use in Animals: Ancient Insights and Moral Consequences,” *Scholia: Natal Studies in Classical Antiquity*, N. S. 14 (2005) 3–17.
- Nicolay, Eveline, “Homère et l’Âme des Bêtes,” in Friedrich Niewöhner and Jean-Loup Sebon, eds., *Die Seele der Tiere* (Wiesbaden: Harassowitz Verlag, 2001) 51–58.
- Nussbaum, Martha C., *Upheavals of Thought: The Intelligence of Emotions* (Cambridge: Cambridge University Press, 2001).
- Osborne, Catherine, *Dumb Beasts and Dead Philosophers: Humanity and the Humane in Ancient Philosophy* (Oxford: Oxford University Press, 2007).
- Pembroke, S. G., “Oikeiōsis,” in A. A. Long, ed., *Problems in Stoicism* (London: Athlone Press, 1971) 114–149.
- Power, Mick and Tim Dalgleish, *Cognition and Emotion: From Order to Disorder* (Hove and New York: Psychology Press, 2008) 57–99.
- Rachels, James, *Created from Animals: The Moral Implications of Darwinism* (Oxford: Oxford University Press, 1990).
- Rahn, Helmut, “Das Tier in der homerischen Dichtung,” *Studium Generale* 20 (1967) 90–105.
- , “Tier und Mensch in der homerischen Auffassung der Wirklichkeit,” *Paideuma* 5 (1953) 277–297 and 431–480.
- Regan, Tom, Foreword to Andrew Linzey and Paul Barry Clarke, eds., *Animal Rights: A Historical Anthology* (New York: Columbia University Press, 2004) x–xii.
- Renehan, Robert, “The Greek Anthropocentric View of Man,” *HSCPh* 85 (1981) 239–259.
- Reydam-Schils, Gretchen, “Human Bonding and Oikeiōsis in Roman Stoicism,” *OSAPh* 22 (2002) 221–251.
- Rodd, Rosemary, *Biology, Ethics and Animals* (Oxford: Clarendon Press, 1992).
- Rollin, Bernard E., “Anecdote, Anthropocentrism, and Animal Behavior,” in Robert W. Mitchell, Nicholas S. Thompson and H. Lyn Miles, eds., *Anthropocentrism, Anecdotes, and Animals* (Albany: State University of New York Press, 1977) 125–133.
- , *Animal Rights and Human Morality* (Buffalo: Prometheus Press,

- 1992).
- Rowlands, Mark, *Can Animals Be Moral?* (New York: Oxford University Press, 2012).
- Rundis, John, "The Vegetarianism of Empedocles in Its Historical Context," *The Ancient World* 29 (1998) 19–35.
- Ryder, Richard, "All Beings That Feel Pain Deserve Human Rights," *Guardian*, August 6, 2005.
- Safina, Carl, *Beyond Words: What Animals Think and Feel* (New York: Henry Holt, 2015).
- Sallmann, Klaus, "La Responsabilité de l'Homme face à la Nature," *Helmantica* 37 (1986) 251–266.
- Sassi, Maria Michela, *The Science of Man in Ancient Greece*, transl. by Paul Tucker (Chicago: University of Chicago Press, 2001).
- Sax, Boria, "What Is This Quintessence of Dust?: The Concept of the 'Human' and Its Origins," in Rob Boddice, ed., *Anthropocentrism: Humans, Animals, Environments* (Leiden and Boston: Brill, (2011) 19–36.
- Scanlon, Thomas M., *What We Owe to Each Other* (Cambridge: Harvard University Press, 1998).
- Schiappa, Edward, *Protagoras and Logos: A Study in Greek Philosophy and Rhetoric* (Columbia: University of South Carolina Press, 2003).
- Shelton, Jo-Ann, "Contracts with Animals: Lucretius, *De Rerum Natura*," *Between the Species* 11 (1995) 115–121.
- , "Lucretius on the Use and Abuse of Animals," *Eranos* 94 (1996) 48–64.
- Sihvola, Juha, *Decay, Progress, the Good Life? Hesiod and Protagoras on the Development of Culture* (Helsinki: Societas Scientiarum Fennica, 1989).
- Smith, Steven D., *Man and Animal in Severan Rome: The Literary Imagination of Claudius Aelianus* (Cambridge: Cambridge University Press, 2014).
- Smith, Wesley J., *A Rat Is a Pig Is a Dog Is a Boy: The Human Cost of the Animal Rights Movement* (New York: Encounter Books, 2010).
- Sorabji, Richard, *Animal Minds and Human Morals: The Origins of the Western Debate* (Ithaca: Cornell University Press, 1993).
- , *Emotion and Peace of Mind: From Stoic Agitation to Christian Temptation* (Oxford: Oxford University Press, 2000).
- Steiner, Gary, *Animals and the Moral Community: Mental Life, Moral Status, and Kinship* (New York: Columbia University Press, 2008).
- , *Anthropocentrism and Its Discontents: The Moral Status of Animals in the History of Western Philosophy* (Pittsburgh: University of

- Pittsburgh Press, 2005).
- Stokes, Michael C., *One and Many in Presocratic Philosophy* (Cambridge: Harvard University Press, 1971).
- Striker, Gisela, "Emotions in Context: Aristotle's Treatment of the Emotions in the *Rhetoric* and His Moral Psychology," in Amélie Oksenberg Rorty, ed., *Essays in Aristotle's Rhetoric* (Berkeley: University of California Press, 1996) 286–302.
- , "The Role of Oikeiōsis in Stoic Ethics," *OSAPh* 1 (1983) 145–167.
- van der Stockt, Luc, "Plutarch and Dolphins: Love Is All You Need," in Jacques Boulogne, ed., *Les Grecs et les Animaux: Le Cas Remarquable de Plutarque* (Lille: Collection UL3, 2005) 43–61.
- Vegetti, Mario, *Il Coltello e lo Stilo: Animali, Shiavi, Barbari e Donne alle Origine della Razionalità* (Milan: Il Saggiatore, 1979).
- Versenyi, Laszlo, "Protagoras' Man-Measure Fragment," *AJPh* 83 (1962) 178–184.
- Wallace-Hadrill, Andrew, "Pliny the Elder and Man's Unnatural History," *Greece and Rome* 37 (1986) 80–96.
- Williams, Bernard, *Shame and Necessity* (Berkeley: University of California Press, 1993).
- Winner, Langdon, "Resistance Is Futile: The Posthuman Condition and Its Advocates," in
- Harold W. Baillie and Timothy K. Casey, eds., *Is Human Nature Obsolete? Genetics, Bioengineering, and the Future of the Human Condition* (Cambridge: MIT Press, 2005) 385–410.
- Zilioli, Ugo, *Protagoras and the Challenge of Relativism: Plato's Subtlest Enemy* (Aldershot: Ashgate, 2007).
- Zirin, Robert, "Aristotle's Biology of Language," *TAPhA* 110 (1980) 325–347.

Index

Note: The following abbreviation has been used – *n* = note

Abel, R. [42n21](#)

Achilles [19n8](#)

Adam's Tongue: How Humans Made Language, How Language Made Humans (Bickerton) [116](#)

Adler, M. [2–5](#), [8n9–18](#), [19n5](#), [44](#), [59–61](#), [73n56–63](#), [91](#); anatomical uniqueness [114–15](#), [119n23](#)

Aelian: *On the Nature of Animals* [114](#)

Aetius: *Placita* [54](#), [71n31](#), [101n13](#)

Age of Empathy: Nature's Lessons for a Kinder Society, The (deWaal) [103n37](#)

age of reason: humankind [79](#), [101n13](#)

Aidōs: The Psychology and Ethics of Shame in Ancient Greek Literature (Cairns) [41n14](#)

air (ἀήρ, *aēr*) [13](#)

Alcmaeon of Croton [13](#), [45](#), [57](#), [69n6](#)

Alexander of Aphrodisias; *On the Soul* [101n12](#)

Alexander, or Whether Dumb Animals Are Rational see [On Animals \(Philo of Alexandria\)](#)

American Sign Language (ASL) [6](#), [7](#), [117](#), [118n8](#)

analogous intellectual capacities [50](#), [51](#)

analogy [10–11](#), [18–19n3](#), [50](#), [113](#), [127](#)

anatomical uniqueness [viii](#), [ix](#), [x](#), [5](#), [13](#), [20n17](#), [27](#); defence mechanisms [107](#), [111](#), [117–18n2](#), [118n3](#), [119n14](#); facial expressions [122](#); hands [107–8](#), [111](#), [112–13](#), [114](#), [118n5](#), [119n18](#); humankind as imitation of the divine [111–12](#); providence and construction of human body [110–11](#); speech and language [109–110](#), [114](#), [116–17](#); superiority of the human body [107–8](#); technological skills [113–14](#), [115–16](#); upright stance [108](#), [110](#), [111](#), [112](#), [114–15](#), [118n4](#), [119n12;25](#); see also [emotional uniqueness](#); [intellectual uniqueness](#)

Anaxagoras of Clazomenae [13](#), [14](#), [20n16–17](#), [118n6](#)

Ancient Greek Ideas on Speech, Language, and Civilization (Gera) [41n16](#)

Ancient Natural History (French) [72n46](#)

anecdote 84, 86, 88, 92, 102n26; emotional uniqueness 125, 126, 127, 129, 131n4, 132n14
 ‘Anecdote, Anthropomorphism, and Animal Behavior’ (Rollin) 74n80
 Angell, T. 115
 anger (ὀργή, *orgē*) 124, 127
 anguish (ὀδύνη, *odunē*) 124, 126
 animal creation 32–3; Aristotle’s work in taxonomy 45–51; complexity of nature 50–1, 70–1n23; four elements 14–15; importance of language 57; intelligent design 37, 43n32; ‘power of nature’ 36; self-preservation of living species 26–7; unitary nature of 12, 20n12;14
Animal Minds and Human Morals: The Origins of the Western Debate (Sorabji) 43n35, 46, 47, 49, 50, 54, 69n10;13, 70n17–18;21, 71n32; moral value 76–7, 95, 100n4, 100–1n10, 101n15, 101–2n23 104n43, 105n79–80
Animal Rights and Human Morality (Rollin) 105n83
 animal rights movement ix, 1, 2, 61, 62, 91, 93–4
Animals in the Classical World: Ethical Perspectives from Greek and Roman Texts (Harden) 42n21
Animals, Emotion and Morality: Marking the Boundary (Dixon) 130–1
Animals Issue: Moral Theory in Practice (Carruthers) 76, 91–4, 96, 104n46
Animals and the Moral Community: Mental Life, Moral Status, and Kinship (Steiner) x–xin4, 95
Anthropocentrism: Humans, Animals, Environments (Boddice) 6, 9n35
Anthropocentrism and Its Discontents: The Moral Status of Animals in the History of Western Philosophy (Steiner) 19n5, 52, 71n25, 100n6
 anthropocentrism viii, 63, 74n80; exclusivity/inclusiveness 67; human superiority 23, 24, 26, 27, 40n6, 70n19; Platonic dialogue 30–6; Protagoras 42n21; Socrates 29; Stoicism 51–9; uniqueness of humankind 1–8, 9n25;35;36;45, 15, 16, 18n2, 19n7; world created for humankind 37; see also *Greco-Roman philosophy*
 ‘anthropological thought’ 9n47, 10
 anthropomorphization 84, 86, 88, 92, 102n26; emotional uniqueness 122–3, 125, 126, 127, 131n4
 Antisthenes 41n13
 ‘Antropocentrismi’ (Lanata) 21n26
Apology (Plato) 24, 25
 Argument from Marginal Cases 39, 103–4n39
Argumentis Quibusdam apud Xenophontem, Platonem, Aristotelem Obviis e Structura Hominis et Animalium Petitis, De (Dickerman) 24, 39n1, 40n5, 41n13, 118n4, 119n14;21
 Aristodemus 26, 27
 ‘Aristotle: Animals, Emotion, and Moral Virtue’ (Fortenbaugh) 69–70n14

Aristotle: animal intellect and emotion 69–70n14; biological gradualism 57; Great Chain of Being 50, 70n21; human superiority 23, 25, 45–6, 49, 70n19, 76–7, 78; human tongue and speech 109, 116; emotional uniqueness 123–4, 132n8;10; 7, 8–9n20 11, 18n2, 20n17; 'just war' 42n17, 78, 85, 108; moral value 90; 'radically different in kind' 3; work in taxonomy 45–51; *Generation of Animals* 70–1n23; *History of Animals* 46, 49–50, 59, 70n20, 103n34, 109, 111, 113; *Metaphysics* 58, 113; *Nicomachean Ethics* 47–8, 77, 78, 80–1, 130; *On the Heaven* 71n23; *On the Movement of Animals* 19n5, 51; *On the Parts of Animals*: 19n5, 20n17; anatomical uniqueness 107, 108, 109, 111, 112, 113; reasoning 46–7 50, 53, 59, 67n12; *On the Soul* 48–9, 109–10, 118n10; *Physics* 58–9, 113; *Politics* 108, 124; moral value 77–8, 85, 86, 90, 102n33; reasoning 44, 47, 49, 53, 54, 59; *Rhetoric* 123–4, 132n8;10

'Aristotle and the Concept of Evolution' (Edelstein) 70–1n23

articulate sounds (ἐνάρθρους φωνάς, *enarthrous phōnās*) 55

artificer (τεχνίτης, *technitēs*) 17, 22n36

artificial human beings 6, 9n38

Astronomica (Manilius) 111

atomic theory 15

Augustine, Saint 3, 55; *On the City of God* 53–4, 71n29

Balbus 52, 53, 71n28, 110, 112

Banquet of the Seven Sages (Plutarch of Chaeronea) 87–8, 103n36–7

Beagon, M. 36, 37, 42n27–8;30–1, 43n34;36, 116–17, 132n12

Beast and Man: The Roots of Human Nature (Midgley) 6–7, 94, 116–17, 122

Bekoff, Marc 127, 129–30, 132n13–15, 133n21

belief (πίστις, *pistis*) 48

Bell, J. 69n11

Bentham, Jeremy 121, 122, 129

Beyond Words: What Animals Think and Feel (Safina) 131n5

Bickerton, D. 116

biological exceptionalism 5, 8n23;27

Biology, Ethics and Animals (Rodd) 97–9, 105n82;89

birds 115, 116, 119n13

Boddice, Rob 6, 9n35

Bréchet, C. 74n85

Cairns, D. 41n14

Can Animals Be Moral? (Rowlands) 130

Carneades 71n28

Carruthers, P. 76, 91–4, 96, 104n46

Cartledge, Paul 19n3

Celsus 19n6

choice (προαίρεσις, *proairesis*) 80–1
 Chomsky, N. 92, 105n59
 Christianity 4, 5, 9n24, 19n6, 112; reasoning 53, 56, 62
 Chrysippus 37, 43n33, 119n13, 124, 128; reasoning 5, 12, 53, 56; *On Justice* 79–80
 Cicero; *On Duties* 55; *On the Ends of Good and Evil* 43n33, 81, 82, 83; *On Invention* xn2; *On the Laws* 119n12; *On the Nature of the Gods* 43n33, 52, 53, 71n28, 110, 112; *Tusculan Disputations* 57
 Clement of Alexandria; *Stromateis* 56
 Coby, P. 41n16
 cognitive theory of emotions xin4, 127–8, 129–30, 132n14
 Cohn, B. 18–19n3
 commonplace (*topos*) viii, xn2
 compassion 130–1
 conceptual thought 3
 constitution (οὐστάσις, *sustasis*) 79, 101n12
 continuity of consciousness 97–8
 contract theory 91–5, 104n54, 104–5n56
 ‘Contracts with Animals: Lucretius, De Rerum Natura’ (Shelton) 72n44
 corrective justice (τὸ διορθωτικόν, *to diorthōtikon*) 77
 covenants (*sunthēkai*) 57, 82
Cratylus (Plato) 42n19, 111
Created from Animals: The Moral Implications of Darwinism (Rachels) 5, 9n28–34
 cultural uniqueness 5–6, 16, 17, 23, 24, 97; anatomical uniqueness and 113, 118n3; reasoning and 45, 59
 d’Agostino, V. 74n78
 Darwinism *see* evolutionary theory
 Dawkins, M. Stamp 131n3
De la Phronesis Animale (Labarrière) 70n16
 De Romilly, J. 17, 22n35–6
Decay, Progress, the Good Life? Hesiod and Protagoras on the Development of Culture (Sihvola) 41n13;16
 defense mechanisms 107, 108–9, 111, 117–18n2, 118n3, 119n14
 DeGrazia, D. 94, 96, 105n71–2;81
 deliberate choice (βούλησις, *boulēsis*) 57, 58, 72n48, 80–1
 Democritus 100n5
Der Mensch als Mittelpunkt der Welt: Zu den geistesgeschichtlichen Grundlagen des anthropozentrischen Denkens (Lau) 4–5, 8n19, 40n9
 design (τέχνη, *technē*) 58
 desire (θυμός, *thūmos*) 48, 51, 56, 57, 80, 124
 deWaal, Frans xin4, 103n37, 131n5
 Dickerman, S.O. 24, 39n1, 40n3;5, 41n13, 118n4, 119n14;21

Die Tierpsychologie des Plutarchos von Chaironeia (Dyroff) 63, 74n81
 Dierauer, U. 19n5, 40n6, 42n26, 43n36; reasoning 45, 69n8, 70n19–20; Stoicism 57, 72n43;47
 difference 20n12, 23, ‘radically in kind’/‘in degree’ 2–4, 5, 6–7, 9n30, 60, 68; emotional uniqueness and 130; self-preservation and 78–9, 101n12; superiority/inferiority 10, 12, 13, 16, 17, 18n2, 25, 26, 31, 70n19; ‘upper’ and ‘lower’ 11
Difference of Man and the Difference It Makes, The (Adler) 2–4, 8n9–18, 59–61, 73n56–63, 91
 Diogenes of Apollonia: DK64B4 13–14, 20n18
 Diogenes Laertius: *Lives of the Philosophers* 12–14, 17, 20n14, 21n20, 22n35; reasoning 45, 57, 70n20; uniqueness of humankind 30, 41n13, 42n19; see also Zeno
Discourses (Epictetus) 53
 distress (ἀνία, *ania*) 124, 126, 133n26
 distributive justice (διανομή, *dianomē*) 77
 divine ‘purpose’/‘design’ (γνώμη, *gnōmē*) 24–30
 ‘divine sign’ (τὸ δαίμονιον) 25
 divinity 36–7, 40n8, 48–9, gods’ care/concern for 25, 26–7, 28, 29, 30; humankind as imitation of 108, 109, 110–12; ‘living like gods’ 25–6, 28, 33; upright stance and 111, 115, 119n25
 Dixon, B.A. 130–1
 dolphins 87–8, 103n35–6, 126, 127, 128–9, 133n23
Double Arguments (Anonymous) 17, 22n37
Dumb Beasts and Dead Philosophers: Humanity and the Humane in Ancient Philosophy and Literature (Osborne) 70n21, 100n6
 Dyroff, A. 63, 74n81

Eclogae (Stobaeus) 80, 101n13
 Edelstein, L. 70–1n23
Elder Pliny on the Human Animal: Natural History Book 7, The (Beagon) 36, 42n27–8;31, 43n36
 elements of creation (κόσμος, *kosmos*) 12
 elephants 73n57, 87, 125–6, 128
Emotional Lives of Animals, The (Bekoff) 129, 133n21
 emotional uniqueness viii, ix, x, 5, 38, 39, 43n34;
 anthropomorphization 122–3, 125, 126, 127, 131n3;5; cognition and 127–8, 129–30, 132n14; facial expressions 122; Greco-Roman philosophy 123–7, 131–2n6; grief 124, 125–9, 132n8;10, 133n21;23; intention 130–1; judgment 127–8, 129; love of offspring 84, 102n29; ‘moral’ behaviors 125, 128, 129–31; rationality and 121–2, 124; see also anatomical uniqueness; intellectual uniqueness; moral value
 ‘Emotions in Context: Aristotle’s Treatment of the Emotions in the

Rhetoric and His Moral Psychology' (Striker) 132n8
Emotions of the Ancient Greeks: Studies in Aristotle and Classical Literature, The (Konstan) 123, 131–2n6, 132n10, 133n19
Emotions and Peace of Mind: From Stoic Agitation to Christian Temptation (Sorabji) 132n9, 133n26
 Empedocles of Acragas 14–15, 21n20–1, 78
 'End of Anthropocentrism, The' (Boddice) 6, 9n35
 Engberg-Pedersen, T. 100–1n10
 Epictetus: *Discourses* 53
 Epicureanism 59, 72n44, 77, 82, 100–1n10, 101n20; contract theory 91–2, 93
 Epicurus: *Sovereign Maxims* 57, 82, 93
 Epimetheus 32, 33, 34, 112
 ethology x–xin4, 9n47, 92, 131n5
 Euthydemus 28, 29
 evolutionary theory 5, 6, 9n25–31
 expectation (προσδοκία, *prosdokia*) 64
 expediency (τὸ συμφερόν, *to sumpheron*) 93

 facial expressions 122
 fear (φόβος, *phobos*) 124, 127
 first affiliation (πρῶτον οἰκεῖον, *prōton oikeion*) 79, 101n12
 first principle (ἀρχή, *archē*) 12
 Fortenbaugh, W.W. 69–70n14
 French, R. 72n46
 friendship 77

 Galen 117; *On the Usefulness of Bodily Parts* 107–8, 111, 112–13, 117, 118n3–5
 'Galens teleologische Betrachtung der menschlichen Hand in de usu partium' (Gross) 118n5
Generation of Animals (Aristotle) 70–1n23
 Gera, D.L. 41n16
 Gigon, O. 40n4
 'god vis-à-vis man' model 23, 28, 30
Good Natured: The Origins of Right and Wrong in Humans and Other Animals (deWaal) xn4, 131n5
 Goodale, Greg 8–9n20
 'goodness' 80–1, 82
 governing principle (ἡγεμονικόν, *hēgemonikon*) 54, 55, 56, 66, 71n31–2, 79
 Graham, D.W. 21n23
 gratitude (χάρις, *charis*) 103n34, 123
 Great Chain of Being 50–1, 70n21
 Greco-Roman philosophy 3, 4, 5, 7, 8, 9n21;24;46–7, 121; analogy

and polarity 10–11, 18–19n3; emotional uniqueness 123–7, 131–2n6; intellectual uniqueness 23–5, 27, 29, 40n5, 107, 121; language 16, 22n31; ‘man alone of animals’ concept 13, 15–17, 18n3, 19–20n9, 20n10–11, 21n26; scientific classification 10, 18n1–2; similes 11–12, 20n10; ‘upper’/‘lower’ difference 11; *see also* **anthropocentrism**; *under* individual authors

‘Greek Anthropocentric View of Man, The’ (Renahan) viiii, xn2, xin5, 44, 69n1–3, 111–12, 121

Greeks: A Portrait of Self and Others, The (Cartledge) 19n3

grief (λύπη, *lupē*) 124, 125–6, 126–7, 127–8, 128–9, 132n10, 133n21;23

Gross, K. 118n5

Gruen, Eric S. 18n3

Gryllus (Whether Beasts Are Rational) (Plutarch of Chaeronea) 40n7, 66, 102n25

Guthrie, W.K.C. 12, 16, 21n28;30, 41n13, 70n23

Hamlet II. ii, 1

hand 13, 20n17, 27, 28; anatomical uniqueness 107, 108, 109, 111–13, 114, 118n5

Hands (Napier) 119n18

happiness (εὐδαιμονία, *eudaimonia*) 47–8, 80–1, 109

Harden, A. 42n21

‘harm as deprivation’ 101–2n23, 102n32

Hauser, Marc D. 99, 115, 116, 127–8, 131n4

Hayes, Keith and Cathy 116

Heath, John 17, 18n3, 19n4, 22n33;38, 45, 69n9; non-human animals and speech 54–5, 71n34–6

Hermarchus 100–1n10

Herodotus: *Histories* 88, 103n37

Hesiod viiii, xn1, 12, 13, 15, 23, 88; *Works and Days* 11, 19n7, 45, 82, 85–6, 101n22

Hippocrates 31, 32

Histories (Herodotus) 88, 103n37

History of Animals (Aristotle) 46, 49–50, 59, 70n20, 103n34; anatomical uniqueness 109, 111, 113

Homer viiii; *Iliad* 11–12, 19n8, 19–20n9–10

human dignity 6, 7, 9n33;43

human exceptionalism ix, 1, 2, 7, 8n3;5;8, 17; differing *radically in kind* 3, 8n12; moral value and 130; reasoning and 44, 59–62, 91, 97, 104n45

human-to-human comparisons 10–11, 19n4

humankind 4, 19n6, 37, 38, 39, 61; abuse of nature’s elements 43n33; age of reason 79, 101n13; as ‘artificer’ 17, 22n35–6, 112; artistic

endeavors 73n57; characteristic excellence 7, 9n41–3; ‘continuity’ with other animal species 7, 9n40; first years of life 37–8; fellowship 14; gods’ care/concern for 25, 26–7, 28, 29, 30; happiness 47–8, 80–1; injustice and human soul 89; ‘living like gods’ 25–6, 28, 33; man as measure of all things 35, 42n19–25; mortality/immortality 11, 19n8; obligation to non-human animals 76, 79–80, 93, 98–9; ‘self-creation’ 4–5, 8n22; sexual activity and 27, 40n7; technical skills 58–9, 112–13; as ‘tool-makers’ 6, 9n37; usefulness of created world 52–3; versatility and adaptability of 36; warfare and 34, 42n17; *see also* non-human animals

Hunt, G. 115

Il Coltello e lo Stilo: Animali, Schiavi, Barbari e Donne alle Origine della Razionalità (Vegetti) 18n1, 69n12

Iliad (Homer) xn1, 11–12, 19n8, 19–20n9–10

imagination/impression (φαντασία, *phantasia*) 48–9, 51, 64, 70n17–18, 124, 125

impulse (ὁρμή, *hormē*) 56, 58, 81, 101n16

In the Beginning (Guthrie) 41n13, 70n23

inclination (ἐπιθυμία, *epithūmia*) 48

instinct (φύσις, *phusis*) 39, 47, 60, 70n15, 119n20

intellectual uniqueness 112; capacity of non-human animals 44, 50, 58–69, 92; emotional uniqueness and cognition 129–30; reasoning and 44–5, 46, 47, 69n6; Greco-Roman philosophy 23–5, 27, 29, 40n5, 107, 121; inferiority of non-human animals 46, 47, 49, 53, 54, 60; moral value and 96–7 99, 104n42, ‘radically in kind’/‘in degree’ 2–4, 5, 6–7 9n30, 60, 68; uniqueness of humankind viii, ix, xin5, 2, 13–14, 33, 38–9; *see also* anatomical uniqueness; emotional uniqueness

intention (πρόθεσιν, *prothesin*) 64, 130–1

internal reason (λόγος ἐνδιάθετος, *logos endiathetos*) 55, 56, 59, 66, 68

Introduction to the Principles of Morals and Legislation (Bentham) 121, 122, 129

Isocrates 22n31

judgment (κρίσις, *krisis*) 124, 125, 127–8, 129

‘just war’ (δίκαιος πόλεμος, *dikaïos polemos*) 42n17, 78, 85, 108

justice (δίκη, *dikē*) 11, 89–90, 100n5, 101n17, 102n25, 103n34; emotional uniqueness 84; kinship and 78–82, 83; rationality 31, 34, 41n14; speech and 77–8, 81–2, 85, 86

‘kinship’ (οἰκειώσις, *oikeiōsis*) 15, 21n22, 67, 96; arch-anthropocentrism of Stoicism 95, 105n76; perception and 88–9; rationality 78–85, 88–9, 99, 100n7, 101n10–12; 17, 102n28; *see also*

- moral value
- Kleczkowska, K. 19n3
- Konstan, D. 74n85, 123, 131–2n6, 132n10, 133n19
- ‘La Mano dell’ Uomo da Aristotele a Galeno’ (Longo) 118n5
- Labarrière, J.-L. 70n16
- Lanata, G. 21n26
- language 3, 5–6, 7, 9n42–3, 41n16, 67–8; anatomical uniqueness and 109–10, 114, 116–17; animal creation 57; gradational phenomenon 94–5; Greco-Roman philosophy 16, 22n31; ‘key to our castle’ 7, 75n88, 94, 117, 122; moral value 92–3, 94–5, 98, 105n58;70; see also speech
- Language and Problems of Knowledge* (Chomsky) 92, 105n59
- Lau, Dieter 4–5, 8n19–27, 19n6, 22n32;34, 40n2;9
- Levi, A. 35, 42n22
- linguistic capacity see speech; language
- Lives of the Philosophers* (Diogenes Laertius) 12–14, 17, 20n14, 21n20, 22n35; reasoning 45, 57, 70n20; uniqueness of humankind 30, 41n13, 42n19; see also Zeno
- living being (ζῷον; zōion) 11–12
- living in accord with nature 58–9, 66, 72n48, 73n50, 109, 118n7
- Lloyd, G.E.R. 18n3
- loci: definition xn2
- Longo, O. 118n5
- Lucretius: *On the Nature of Things* 117–18n2
- ‘Lucretius on the Use and Abuse of Animals’ (Shelton) 72n44
- McCarthy, S. 122–3, 131n4, 133n23

Maguire, J.P. 41n13
 man (ἄνθρωπος, anthrōpos) viii, 35, 42n22
 ‘man alone of animals’ (μόνον τῶν ζώων ἄνθρωπος, *monon tōn zōiōn anthrōpos*) viii, ix–x, 5, 7, 8, 9n32;34; divinity 33, 37; emotional uniqueness 130–1; in Greco-Roman philosophy 13, 15–17, 18n3, 19–20n9, 20n10–11, 21n26; ‘Other’ 23
Man and Animal in Severan Rome: The Literary Imagination of Claudius Aelianus (Smith) 103n35
Man Is the Measure: A Cordial Invitation to the Central Problems of Philosophy (Abel) 42n21
 ‘man vis-à-vis animals’ model 23, 28, 30
 Manilius: *Astronomica* 111
 ‘Manufacture and Use of Hook-tools by New Caledonian Crows’ (Hunt) 115
 Marcus Aurelius 3
 Masson, J. Moussaieff 122–3, 131n4, 133n23
 measure (μέτρον, *metron*) 35
 Melampous 68
Memorabilia (Xenophon) 24–30, 39n1, 40n2–3, 52, 53; anatomical uniqueness 107, 109, 110
 memory (μνήμη, *mnēmē*) 48, 58, 64, 65
Metamorphoses (Ovid) 111
Metaphysics (Aristotle) 58, 113
 metempsychosis (transmigration of souls) 14–15, 20n19, 21n20
 Midgley, Mary 6–7, 75n88, 94, 116–17, 122
 mind (νοῦς, *nous*) 16, 20n16, 46, 51
 ‘moral individualism’ 6, 9n34
Moral Letters (Seneca) 52, 56, 82, 83
 moral value 1, 4, 5, 6, 8n4, 9n33, 22n33;34; agency and 2, 58, 130; biological theories 97–9; contract theory 91–5, 104n54, 104–5n56; ethological research 99; friendship without advantage 86–8; injustice and human soul 86–7, 89–90; justice 77–8, 79–82, 84–6, 100n5; mental capacity and 96–100; non-human animals 47, 55, 62, 71–2n37, 73n74, 90; perception and 88–9; rational agency 44, 61, 81, 82, 90, 91–4; rights and duties 2, 4, 5, 8n6;19, 56, 72n42; sentience model 95, 98; speech 81–2, 84, 85, 90–3, 96, 98; superiority of humankind 17, 31, 76; vegetarianism 85–6, 89, 104n40, 108; see also emotional uniqueness; kinship
 moral virtue ((ἀρετή, *aretē*) 16
 Moss, Cynthia 128, 133n32
 Musaeus 12, 20n14

Naas, M. 69n11

Napier, J. 119n18

Natural History (Pliny the Elder) 36–9, 42n26–31, 43n33, 113–14;
 emotional uniqueness 125–6, 132n12; rationality 88, 103n37
Natural Questions (Seneca) 72n46
 nature; complexity of 50–1, 70–1n23; ‘power of’ 36
Neikos (Strife/Hate) 14
 Neoplatonism 89
 Newkirk, Ingrid 1, 8n2
Nicomachean Ethics (Aristotle) 47–8, 77, 78, 80–1, 130
 non-human animals 46, 69n11, 94, 99, 128; anatomical advantages
 32–3, 34, 117–18n2; anthropomorphization of 122–3, 125, 126,
 127, 131n3–5; biological theories of mental capacity 97–9; capacity
 for ‘practical wisdom’ 48, 70n16; defence mechanisms 107, 108–9,
 111, 117–18n2; divinity and 28, 40n8; facial expressions 122;
 friendship without advantage 86–8, 103n35–6; futurity 91, 92, 93;
 ‘potentialities’ of 46; ‘speechless/reasonless creatures’ 17; happiness
 47–8, 80–1, 109; impulsiveness 56–7, 58, 81, 101n16; instinctual
 behaviours 39, 47, 60, 69n15, 119n20; intellectual capacity 44, 50–
 1, 58–69, 84, 86, 92, 97–8; intellectual inferiority of 46, 47, 49, 53,
 54, 60; justice and 77, 78–81, 83, 84–7, 89, 95, 105n77; ‘kinship’
 with humankind 67, 79–80, 83–5, 99; laboratory testing of 93, 97–
 8; legal standing 61, 73n67–73; living in accord with nature 58–9,
 66, 72n48, 73n50, 109, 118n7; love of offspring 84, 102n29; moral
 rights and duties 2, 4, 5, 8n6; 19, 56, 72n42; moral value 47, 55, 62,
 71–2n37, 73n74, 90; ‘payback’ of mistreatment 86–7; rationality/
 reasoning 53–4, 57–8, 64–5, 67–8, 90, 91, 124–5; self-preservation
 of 78–9, 81, 101n12, 108–9; service to humankind 29, 53, 97;
 speech 54–5, 59, 65–9, 71–2n37, 122, 125; technological skills 17,
 22n36, 58–9, 66, 73n52; tool use 113–14, 115; *see also* humankind
 non-verbal languages 6, 7, 117, 118n8
*Not the Classical Ideal: Athens and the Construction of the Other in Greek
 Art* (Cohn) 18–19n3
 Nussbaum, M.C. 128, 129, 133n18–20
 nutritive faculty (θρεπτικόν, *threptikon*) 48

 object-directed intentionality 128
 ‘Oikeiōsis’ (Pembroke) 100n8
On Abstinence from Animal Flesh (Porphyry); anatomical uniqueness
 108, 119n13; moral value 78–81, 83, 88–9, 101n11; 20, 101–2n23,
 103n38, 104n40; reasoning 14, 67–8, 71n28, 73–4n77
On Anger (Seneca) 125
On Animals (Philo of Alexandria) 55–6, 62–3, 72n38–41, 82, 86,
 101n21, 103n34
On the Character and Intelligence of Animals (Theophrastus) 50, 70n20,
 101n11

- On the City of God* (Saint Augustine) 53–4, 71n29
- On the Cleverness of Animals* (Plutarch of Chaeronea) 114; emotional uniqueness 125, 126; moral value 83–5, 86, 87, 89, 102n29; 31, 103n35; 38; reasoning 63–4, 67
- On Duties* (Cicero) 55
- On the Early State of Things* (Protagoras) 17, 22n35, 30, 31, 41n12–13
- On the Eating of Flesh* (Plutarch of Chaeronea) 85, 86, 90, 94–5, 104n40
- On the Ends of Good and Evil* (Cicero) 43n33, 81, 82, 83
- On the Heaven* (Aristotle) 71n23
- On the Intelligence and Character of Animals* (Theophrastus) 50, 70n20, 101n11
- On Invention* (Cicero) xn2
- On Justice* (Chrysippus) 79–80
- On the Laws* (Cicero) 119n12
- On the Love of Offspring* (Plutarch of Chaeronea) 84, 102n29
- On the Movement of Animals* (Aristotle) 19n5, 51
- On the Nature of Animals* (Aelian) 114
- On the Nature of the Gods* (Cicero) 43n33, 52, 53, 71n28, 110, 112
- On the Nature of Things* (Lucretius) 117–18n2
- On the Parts of Animals* (Aristotle) 19n5, 20n17; anatomical uniqueness 107, 108, 109, 111, 112, 113; reasoning 46–7, 50, 53, 59, 67n12
- On Piety* (Theophrastus) 78, 101n11
- On the Posterity and Exile of Cain* (Philo of Alexandria) 117–18n2
- On the Self-Contradictions of the Stoics* (Plutarch of Chaeronea) 119n13
- On the Senses* (Theophrastus) 13, 20n15
- On the Soul* (Alexander of Aphrodisias) 101n12
- On the Soul* (Aristotle) 48–9, 109–10, 118n10
- On the Usefulness of Bodily Parts* (Galen) 107–8, 111, 112–13, 117, 118n3–5
- opinion/s (δόξα, doxa/δόξαι, doxai) 48, 125
- Origen 19n6
- Osborne, C. 70n21, 100n6
- ‘Other’ (ἄλλοτριον, allotrion) 6, 9n3; 5, 23, 31, 53; divine ‘purpose’/‘design’ 24–30; Greco-Roman philosophy 10, 13–14, 16–17, 18–19n3, 19n4, 22n38; human innate potential for greatness 30; irrationality of non-human animals 57; metempsychosis and 14–15, 20n19, 21n20; physiological superiority 32–3, 41n15; speech 54–5, 69, 75n88
- Outlines of Pyrrhonism* (Sextus Empiricus) 35, 42n19, 68
- Ovid: *Metamorphoses* 111
- Parente, M.I. 19n6
- passions (πάθη, pathē) 123

Pembroke, S.G. 100n8
 People for the Ethical Treatment of Animals (PETA) 1, 8n2
 perceive/perception (αἰσθάνεται/αἰσθησις, *aisthanetai/aesthēsis*) 3, 13, 20n15, 88–9, 103–4n39; reasoning and 45, 48, 51, 57
 PETA see [People for the Ethical Treatment of Animals](#)
Phaedo (Plato) 21n20
 Philo of Alexandria; *On Animals* 55–6, 62–3, 72n38–41, 82, 86, 101n21, 103n34; *On the Posterity and Exile of Cain* 117–18n2
Philonis Alexandrini de Animalibus: The Armenian Text with an Introduction, Translation and Commentary (Terian) 103n34
Philosophie de Gryllos, La (Bréchet) 74n85
philotes (Friendship/Love) 14
Physics (Aristotle) 58–9, 113
 physiological superiority/inferiority 13, 20n17, 24–5, 39, 40n5, 47
 ‘Pig Convicts Itself of Unreason: The Implicit Argument of Plutarch’s *Gryllus*’ (Konstan) 74n85
 pity (ἔλεος, *eleos*) 124, 126
Placita (Aetius) 54, 71n31, 101n13
 plant life 14, 15, 18n2, 43n33, 89; reasoning 46, 48, 49, 50, 53, 70n23
 Plato 3; ‘divine sign’ 25; *Apology* 24, 25; *Cratylus* 42n19, 111; *Phaedo* 21n20; *Protagoras* 30–6, 41n12–16, 112; *Republic* 21n20; *Symposium* 26; *Theaetetus* 42n19; *Timaeus* 111
Plato’s Animals: Gadflies, Horses, Swans, and Other Philosophical Animals (Bell and Naas) 69n11
 pleasure (ἡδονή, *hēdonē*) 124
 Pliny the Elder 36–9, 42n26–31, 43n33, 113–14; *Natural History*: emotional uniqueness 125–6, 132n12; rationality 88, 103n37
 ‘Pliny the Elder and Man’s Unnatural History’ (Wallace-Hadrill) 43n33
 Plotinus 89
 Plutarch of Chaeronea 62, 74n78, 75n86, 83, 96, 102n24;32; *Banquet of the Seven Sages* 87–8, 103n36–7; *Gryllus* (*Whether Beasts Are Rational*) 40n7, 66–7, 102n25; *On the Cleverness of Animals* 114: emotional uniqueness 125, 126; moral value 83–5, 86, 87, 89, 102n29;31, 103n35;38; reasoning 63–4, 67; *On the Eating of Flesh* 85, 86, 90, 94–5, 104n40; *On the Love of Offspring* 84, 102n29; *On the Self-Contradictions of the Stoics* 119n13
 ‘Plutarch and Dolphins: Love Is All You Need’ (van der Stockt) 103n36
 polarity 10–11, 18–19n3, 54
Polarity and Analogy: Two Types of Argumentation in Early Greek Thought (Lloyd) 18n3
Politics (Aristotle) 108, 124; moral value 77–8, 85, 86, 90, 102n33; reasoning 44, 47, 49, 53, 54, 59
 Porphyry 62, 89, 90, 103–4n39; *On Abstinence from Animal Flesh*: anatomical uniqueness 108, 119n13; moral value 78–81, 83, 88–9,

101n11;20, 101–2n23, 103n38, 104n40; reasoning 14, 67–8, 71n28, 73–4n77
 Posidonius 37
 practical wisdom (φρόνησις, *phronēsis*) 48, 70n16
 preparedness (παρασκευή, *paraskeuē*) 64
 Presocratics viii; intellectual superiority of humankind xn1, 12–14, 15–16, 17, 20n11, 21n23;27; reasoning 45, 62, 69n6; uniqueness of man 23, 25, 29
 primates 6, 7, 92, 116, 117; emotional uniqueness 120n36, 122, 131n3;5
 Prometheus 32, 33
 propositional language 3
 Protagoras 23, 42n21; ‘myth’ in Plato 32–4, 35, 41n15–16; *On the Early State of Things* 17, 22n35, 30, 31, 41n12–13
Protagoras and the Challenge of Relativism: Plato’s Subtlest Enemy (Zilioli) 41n13
Protagoras and Logos: A Study in Greek Philosophy and Rhetoric (Schiappa) 35, 42n20;25
 Protagoras (Plato) 30–6, 41n12–16, 112
 psychological superiority 3, 4, 5, 8n16, 20n17, 25
 Pythagoras of Samos 14, 20n19, 78, 107

 qualitative/quantitative differences viii, 49, 65

 Rachels, James 5, 9n28–34
 ‘Radici di una Filosofia non Antropocentrica’ (Parente) 19n6
 ‘Raison ou Instinct?’ (Dierauer) 57, 72n43;47
Rat Is A Pig Is a Dog Is a Boy: The Human Cost of the Animal Rights Movement, A (Smith) 1–2, 4, 5, 8n1–8, 17, 130; anatomical uniqueness 114–15, 119n23; reasoning 44, 60–2, 73n63–75, 91, 104n45
 rational assent (συγκατάθεσις, *sunkatathesis*) 81, 124–5
 rational impulse (λογικὴ κίνησις, *logikē kinēsis*) 56
 rationality viii, 2, 4–7, 8n7, 9n28; emotional uniqueness 121–2, 124; judgment and 124–5; moral value 44, 61, 81, 82, 90, 91–4; non-human animals 53, 54, 57–8, 64, 65, 81, 103n38; reasoning and 44, 45, 49, 51, 56; superiority of humankind 31, 34, 60, 76, 117; uniqueness in humankind 91, 92, 104n47
Ravens, Crows, Magpies, and Jays (Angell) 115
 reasoning (λόγος, *logos*) 19n3, 22n31;33, 29, 31, 39; Aristotle’s work in taxonomy 45–7; complexity/fixity of nature 50–1; desire and 80; human exceptionalism 17, 59–62, 91, 97, 104n45; human superiority and 13, 49; imagination/impression and 48–9, 70n17–18; intellectual capacity of humankind/non-human animals 44–7, 49–50, 64–6, 69n1–10, 74n77; moral value 76, 83, 90, 96;

practical/political 34; Stoic vision of animal creation 51–8; ‘two logoi’ 65–6, 67, 68, 69, 71–2n37, 73n54; unique in humankind 47–8
reciprocal justice (τὸ ἀντιπεπονθός, *to antipeponthos*) 77
Regan, Tom 35, 42n21, 101–2n23
relativity 17, 35
Renehan, Robert viii, ix, xn2, xin5, 2, 7, 9n44–6; anatomical uniqueness 111–12, 121; reasoning 44, 69n1–3; Greco-Roman philosophy 15, 16, 18n2, 21n24–5
Republic (Plato) 21n20
‘Responsabilité de l’Homme face à la Nature, La’ (Sallmann) 43n33
Rethinking the Other in Antiquity (Gruen) 18n3
Rhetoric (Aristotle) 123–4, 132n8
Rhetorical Invention of Man: A History of Distinguishing Humans from Other Animals, The (Goodale) 8–9n20
Rodd, R. 97–9, 105n82;89
‘Role of Oikeiosis in Stoic Ethics, The’ (Striker) 78, 100n7;9
Rollin, B.E. 74n80, 105n83
Roman Nature: The Thought of Pliny the Younger (Beagon) 36, 42n30, 43n34, 132n12
Rowlands, M. 130
Rundis, John 21n21

Safina, C. 131n5
Sallmann, K. 43n33
Sassi, M.M. 10, 19n4
Sax, Boria 18n2
scala naturae 50–1, 70n21
Scanlon, T.M. 94, 105n66–9
Schiappa, E. 35, 42n20;25
Science of Man in Ancient Greece, The (Sassi) 10
self-preservation 26–7, 78–9
Seneca 52; *Moral Letters* 52, 56, 82, 83; *Natural Questions* 72n46; *On Anger* 125
sensation (αἴσθησις, *aisthēsis*) 51, 58, 64, 65, 68, 88–9, 110, 124
Sextus Empiricus: *Against the Mathematicians* 14; *Against the Professors* 14, 55; *Outlines of Pyrrhonism* 35, 42n19, 68
Shakespeare 1
shame (αἰσχύνη/αἰδώς, *aischunē/aidōs*) 31, 34, 41n14, 124
Shame and Necessity (Williams) 14n14
share/take part in (μετέχειν, *metechein*) 67–8, 75n86
Shelton, J.-A. 72n44
Sihvola, J. 41n13;16
single spirit (πνεῦμα, *pneuma*) 14
Skeptics 68

Skinner, B.F. 131n5
 Smith, S.D. 103n35
 Smith, Wesley J. 1–2, 4, 5, 8n1–8, 17, 130; anatomical uniqueness 114–15, 119n23; moral value 91, 104n45; reasoning 44, 60–2, 73n64–75
 Soclarus 64, 84, 85–6
 Socrates 12, 24–30, 31–2, 39n1, 40n2, 52–3; anatomical uniqueness 107, 109, 110
Socrates and the Sophistic Enlightenment: A Commentary on Plato's Protagoras (Coby) 41n16
 Sophism 16, 17, 21n27–30, 22n31–2;34–5, 107; anthropocentrism 30–6; uniqueness of humankind 23, 24, 28, 30, 31, 35
Sophists, The (Guthrie) 16, 21n28
 Sophocles 10
 Sorabji, R. 43n35; emotional uniqueness 132n9, 133n26; moral value 76–7, 95, 100–1n10, 101n15, 101–2n23, 104n43, 105n79–80; reasoning 46–51, 54, 69n10;13, 70n17–18;21, 71n32
 soul/spirit of animals (μένοϛ/θυμός/ἦτορ, *menos/thūmos/ētor*) 12, 48, 50, 53, 54, 64, 74n85
 soul or spirit of human (ψυχή, *psūchē*) 12, 109–10
Sovereign Maxims (Epicurus) 57, 82, 93
 speech 3, 8n15, 18n3, 22n31–3, 27, 29, 33; anatomical uniqueness and 109–10, 114, 116–17; justice 77–8, 81–2, 85, 86; moral value 81–2, 84, 85, 90–3, 96, 98; non-human animals 54–5, 59, 65–9, 71–2n37, 122, 125; ‘Other’ 54–5, 69, 75n88; reasoning 16–17, 47; see also *language*
 spoken/uttered reason/external (λόγος προφορικός, *logos prophorikos*) 55, 56, 59, 66, 85
 Steiner, Gary: anthropocentrism 19n5, 52, 71n25, 100n6; moral value x–xin4, 95, 96, 98, 105n75–8
 Stobaeus: *Eclogae* 80, 101n13
Stoic Theory of Oikeiosis: Moral Development and Social Interaction in Early Stoic Philosophy, The (Engberg-Pedersen) 100–1n10
 Stoics 34, 8–9n20, 13, 17, 71n24; age of reason of humankind 79, 101n13; anatomical uniqueness 110–11, 119n11;13; animal memory 65; anthropocentrism 23, 29, 37, 43n33, 53–4; contract theory 91–2, 93; doctrine of opposites in the natural world 64, 74n82; emotional uniqueness 124, 125–7, 128, 129, 130, 132, 132n9–10; justice 79–81, 82, 85, 101n17, 102n30; living in accord with nature 58, 66, 72n48, 73n50; moral value 76, 77, 81, 90, 96, 101n15; obligations toward non-human animals 49, 53, 70n19, 71n28; reason and speech 60, 78, 90, 100n6; self-preservation of non-human animals 78–9, 101n12; vision of animal creation 51–8, 62
 Strato 65

Striker, G. 78, 100n7;9, 132n8
Stromateis (Clement of Alexandria) 56
 ‘Studies in Protagoras’ (Levi) 35, 42n22
 ‘Sulla Zoopsicologia di Plutarco’ (d’Agostino) 74n78
 symbolic language 3
Symposium (Plato) 26

Taking Animals Seriously: Mental Life and Moral Status (DeGrazia) 94, 105n71–2
Talking Greeks: Speech, Animals, and the Other in Homer, Aeschylus and Plato (Heath) 17, 18n3, 19n4, 22n33;38, 45, 69n9; non-human animals and speech 54–5, 71n34–6
 ‘technological skills’ (craft) (τέχνη, *technē*) 113–14, 115–16
 teleology 26, 27, 53, 107–10, 112, 114, 118n5
 Terian, A. 103n34
Texts of Early Greek Philosophy: The Complete Fragments and Selected Testimonies of the Major Presocratics, The Part I (Graham) 21n23
 that/how (ὥς, *hōs*) 35, 42n25
Theaetetus (Plato) 42n19
 Theophrastus 50, 70n20, 83, 89, 101–2n23; *On the Intelligence and Character of Animals* 50, 70n20, 101n11; *On Piety* 78, 101n11; *On the Senses* 13, 20n15
 things (χρήματα, *chrēmata*) 35
 ‘Those Who Cannot Speak: Animals as Others in Ancient Greek Thought’ (Kleczkowska) 19n3
Through Our Eyes Only? The Search for Animal Consciousness (Dawkins) 131n3
Tier und Mensch im Denken der Antike: Studien zur Tierpsychologie, Anthropologie und Ethik (Dierauer) 19n5, 40n6, 42n26, 43n36, 45, 69n8, 70n19–20
Timaeus (Plato) 111
 Tiresias 68
 tool use 6, 9n38, 17, 36n22, 73n52, 109, 113–16
 ‘transhumans’ 6, 9n38
 transmigration of souls (metempsychosis) 14, 21n20
Tusculan Disputations (Cicero) 57

 ‘understands’ (ξυνίησι, *xuniēsi*) 13, 20n15, 45, 57, 64, 69n8
Upheavals of Thought: The Intelligence of Emotions (Nussbaum) 128, 129, 133n18–19
 upright stance 3, 11, 19n5, 27; anatomical uniqueness 107, 108, 110–12, 114–15, 118n4, 119n12;25
 use/make use of (χράομαι, *chraomai*) 29, 40n9, 52, 53

 van der Stockt, L. 103n36

veganism [95](#), [105n78](#)
 vegetarianism [14](#), [15](#), [20n19–20](#), [21n21](#), [108](#); moral value [85–6](#). [89](#),
[104n40](#)
 ‘Vegetarianism of Empedocles in Its Historical Context, The’ (Rundis)
[21n21](#)
 Vegetti, Mario [18n1](#), [69n12](#)
 Versenyi, L. [35](#), [42n23–4](#)
 virtue (ἀρετή, *aretē*) [16](#), [21n29](#), [34](#)
 virtuous behavior [58](#), [80](#), [130](#)
 vocalisation *see* [language](#); [speech](#)
 voice (φωνή, *phōnē*) [54](#), [77](#)

 Wallace-Hadrill, A. [43n33](#)
 ‘What Is This Quintessence of Dust?: The Concept of the “Human” and
 Its Origins” (Sax) [18n2](#)
What We Owe to Each Other (Scanlon) [94](#), [105n66–9](#)
When Elephants Weep (Masson and McCarthy) [122–3](#), [131n4](#), [133n23](#)
Wild Minds: What Animals Really Think (Hauser) [99](#), [115](#), [116](#), [131n4](#),
[127–8](#)
 will (βούλησις, *boulēsis*) [48](#)
 Williams, B. [14n14](#)
 Winner, Langdon [6](#), [9n37–9](#)
Works and Days (Hesiod) [11](#), [19n7](#), [45](#), [82](#), [85–6](#), [101n22](#)

 Xenophon: *Memorabilia* [24–30](#), [39n1](#), [40n2–3](#), [52](#), [53](#): anatomical
 uniqueness [107](#), [109](#), [110](#)

 yearning (ὄρεξις, *orexis*) [48](#)
 Yerkes National Primate Research Center [116](#)

 Zeno: divinity [37](#); emotional uniqueness [124](#), [125](#); moral value [79–80](#),
[101n13](#), [102n30](#); reasoning [51](#), [54](#), [56](#), [58](#); *see also* [Diogenes](#)
[Laertius](#)
 Zilioli, U. [41n13](#)
 zoological taxonomy [10](#)

Index locorum

Note: The following abbreviation has been used – *n* = note. Page references are in bold.

Aelian

On the Nature of Animals

II.48 **114**

Aetius

Placita

IV.11 = SVF II.83 **101n13**

IV.21 = SVF II.827 **54, 71n31**

Alexander of Aphrodisias

On the Soul

SVF III.183 **101n12**

Anaxagoras of Clazomenae

DK 59A102 **118n6**

Aristotle

Apology 23b–c **25**

Generation of Animals 731b35 **70–1n23**

History of Animals

504b1–3 **109**

518a18–20 **111**

535b1–2 **59**

588a18–31 **25–6**

588a19–21 **50**

588a23–24 **50**

588a25–26 **50**

588a28 **50**

588a29–30 **113**

588a30–31 **50 113**

588b4 **50**

588b5 **50**

612b19–20 **50**

631a9–10 **103n34**

631a28 **50**

Laws 961d **46**

Metaphysics

980a28 **58**

980a28–30 **58**

980b22–23 **58**

980b27–28 **113**

980b28 **58**

Nicomachean Ethics

1099b33–35 **81**

1105a27–35 **130**

1111b6 **80**

1111b7–9 **80**

1111b13–14 **80**

1118a20–27 **48**

1129a27–29 **77**

1131a25–26 **77**

1131b25 **77**

1132b21 **77**

1139a33–34 **80**

1139b5–6 **80**

1139b6 **80**

1141a27 **48**

1141a28–29 **48**

1147b11 **48**

1147b12 **48**

1161a31–1161b11 **77**

1161a34 **77**

1161b5–6 **77**

1161b7–8 **77**

1178a28 **48**

1178a32–33 **48**

On the Heaven 282a31 **71n23**

On the Movement of Animals

701a28 **51**

701a32 **51**

701a33 **51**

701a35–36 **51**

On the Parts of Animals

644b25–26 **46**

645a16–17 **46**

645a19 **46**

645a23–24 **53**

646a10–12 **46**

650a32 **46**
656a7–8 **108**
656a12–13 **108**
659b35 **109**
660a3–8 **109**
660a17–18 **109**
660a35–661b2 **109**
660b1–2 **59**
661b13–16 **109**
669a19–21 **111**
669a20 **111**
681a12–15 **50**
687a5ff **108**
687a10 **108**
687a11 **108**
687a11–12 **108**
687a17 **108, 118n6**
687a23–687b2 **107**
687b10–15 **112**
687b11ff **113**

On the Soul

414b1 **48**
414b2 **48**
414b3 **48**
414b19 **48**
420b9–16 **109–10**
420b23–33 **109–10**
422a19 **48**
428a22 **48**
428a25 **48**
433a13–14 **48**

Physics

199a23 **58–9**
199a27 **59, 113**

Politics

1253a10–11 **47, 54, 59, 78, 86, 90, 124**
1253a11–19 **102n33**
1253a17–18 **47**
1253a17–19 **86**
1254b12 **49**
1254b22 **49**
1256b15–23 **49**
1256b21 **49, 78**
1256b22 **78**

1256b22–23 **49, 53**
1256b26 **49**
1256b26–27 **49, 85, 108**
1332b4 **47**
1332b4–5 **47**
1332b5–6 **44, 47, 90**

Rhetoric

1378a20–22 **124**
1378a31–33 **124**
1381a21–22 **124**
1383b13–18 **124**

Cicero

On Duties II.50 **55**
On the Ends of Good and Evil
III.64 **82**
III.67 **43n33, 81**
On the Laws I.26 **119n12**
On the Nature of the Gods
II.16 **52**
II.79 **52**
II.133 **43n33, 52, 110**
II.134–135 **110**
II.140 **110**
II.150 **112**
II.154 **52, 53**
II.157 **71n28**
II.158 **53**
II.160 **53**

Tusculan Disputations

IV.12 **57**

Clement of Alexandria

Stromateis

IV.18 = SVF III.442 **56**

Democritus

DK fr. 257–258 **100n5**

Diogenes of Apollonia

DK64B4 **13–14, 20n18**

Diogenes Laertius

Lives of the Philosophers

VII. 55 **101n13**

VII.51 **125**

VII.85 **54, 56, 79**

VII.86 **54**

VII.87 **58**
VII.89 **58**
VII.110–114 **124**
VII.111 **124**
VII.116 **57**
VII.129 **80, 102n30**
VII.138 = SVF II.634 **51**
VII.142 = SVF II.633 **51**
VII.148 **37**
VIII 13. **14**
IX.51 **42n19**
IX.55 **30**
VIII. 83 = DK24B1 **45**

Empedocles

DK31B21 **14**
DK31B103 **14–15**
DK31B115 **15**
DK31B139 **15**

Epictetus

Discourses I.16.2 **53**

Epicurus

Sovereign Maxims (Kuriai Doxai)
XXXI **57, 93**
XXXI–XXXII **82**
XXXI–XXXIII **93**
XXXIII **57, 93**

Galen

On the Usefulness of Bodily Parts
I. 6 **108**
I.2 **108**
I.3 **112, 118n36**
I.12 **112–13**
I.18 **112**
I.22 **113**
III. 1 **107 111**

Herodotus

Histories I.23–24 **88**

Hesiod

Works and Days
274–280 **45, 82, 101n22**
277–279 **85–6**

Lucretius

On the Nature of Things

V.925–930 **117–18n2**

V.988–993 **117–18n2**

Manilius

Astronomica IV.905–907 **111**

Ovid

Metamorphoses I.85–86 **111**

Philo of Alexandria

On Animals

12 **56**

60 **86**

64 **86**

77 **56**

77–100 **55–6, 63**

96 **56**

98 **56**

100 **82, 101n21**

On the Posterity and Exile of Cain

160–162 **117–18n2**

Plato

Cratylus

385e **42n19**

399c **111**

Protagoras 309d **31**

312a **31**

312c **31**

312d **31**

312e **31**

314a **31**

318d **31**

318e–319a **32**

319a **32**

319d **32**

320b **32**

320c **32**

320c–322d **30**

320d **32**

321b **32**

321c **32**

321c **33**

322a **33, 34**

322c **31**

322c **34**

322d **33**

322d **34**

323a **34**

324d **34**

Symposium 173b **26**

Theaetetus 152a **42n19;22**

Timaeus 91e–92a **111**

Pliny the Elder

Natural History

Praefatio

13 **36**

17 **36**

II.1. **36**

II.14–27 **36**

II.18 **36**

II.25 **38**

II.25 **38**

II.28 **36**

II.208 **36**

VII.1 **43n33**

VII.137

VII.2 **43n33**

VII.3 **43n33**

VII.4 **38**

VII.5 **38 125, 132n12**

VII.6–67 **38**

VII.8 **38**

VII.32 **38**

VII.38 **38**

VII.52 **38–9**

VII.125 **113–14**

VIII.1.1 **125–6**

VIII.7.21 **126**

IX.8.25 **126**

IX.10.33 **126**

IX.24 **88**

IX.28 **88**

X.59 **114**

Plutarch of Chaeronea

Banquet of the Seven Sages

159B–C **87**

161D **88**

162F 88

Gryllus (Whether Beasts Are Rational)

986F 102*n*25

987F 102*n*25

990D 66

992C 67

X.136ff 66

On the Cleverness of Animals

959A–965D 63, 66

959E–963F 67, 88, 103*n*38

960A 64, 75*n*86, 84, 125

960B 64

960C 64

960D 64, 75*n*86

960F 64, 125

961A 65

961C 65

961D 65, 125

962A 75*n*86

962B 65, 84

962C 65, 75*n*86

962D 65

963B 65

963E 65

964A 84

964B 85

964F 85, 89

965D–985C 63, 86

966B 66, 75*n*86, 84

967A 114

967B 114

967E 75*n*86

968E 87

972F 65

973A 66, 102*n*31

973E 66

984C 87

984D 87

984E 103*n*35

984F 87

985A–B 126

985B 126

985C 63

On the Eating of Flesh

994A 90, 94–5

994D 86

994E 85

995D–996A 104**n40**

999A 85

999B 85

On the Love of Offspring

495B 102**n29**

On the Self-Contradictions of the Stoics

1044D 119**n13**

Porphyry

On Abstinence from Animal Flesh

I.14 108

II.3 104**n40**

II.12 101–2**n23**

II.24 83

III.1 80, 81

III.2–4 67

III.2.1 67

III.3.3 68

III.3.4 68

III.3.6 68

III.6.7 73–4**n77**

III.7.1 68

III.19 79, 88

III.20 119**n13**

III.20–24 67, 88, 103**n38**

III.20.6 71**n28**

III.25 78, 83, 101**n11**

III.26 89

III.27 89

Protagoras,

DK80B1 23

Pythagoras of Samos

On Abstinence from Animal Flesh III. 1. 4. 14

Saint Augustine

On the City of God I.20 53

Seneca

Moral Letters

LXXVI.9 52

LXXVI.10 52

CXXI.21 56

XCV.52 82

On Anger

I.3.7 **125**

II.3.5 **125**

Sextus Empiricus

Against the Mathematicians

IX. 127–129 **14**

Against the Professors

VII.60 **42n19**

VIII.275 = SVF II.135 **55**

Outlines of Pyrrhonism

I.62 **68**

I.76 **68**

I.216 **35**

I.216 **42n19**

Sophocles

Antigone 332 **10**

Stobaeus

Eclogae

I.48 (= SVF I.149) **101n13**

II.59.4 = SVF III.262 **80**

Xenophon

Apology of Socrates 10 **25**

Memorabilia 25–30 **39n1, 40n2–3**

I.1 **26**

I.1.1 **24**

I.1.11 **25**

I.1.12 **25**

I.1.16 **25, 29**

I.1.19 **25, 26, 40n4**

I.1.2 **25**

I.1.4 **25, 27**

I.3.14 **27**

I.4.4 **26**

I.4.5 **25–6, 109**

I.4.6 **26, 110**

I.4.7 **26**

I.4.9 **27**

I.4.10 **27**

I.4.11 **27**

I.4.12 **27, 40n7**

I.4.13 **28, 40n8**

I.4.14 **25–6, 28**

II.140–141 **110**

II.147 **110**

II.150 **110**
II.153 **110**
II.154 **110**
II.156 **110**
II.157 **53**
II.158 **110, 119*****n13***
IV 3.10 **29**
IV 3.11 **29**
IV.2.1 **28**
IV.3. **228**
IV.3.10 **52–3**
IV.3.3 **27**
IV.3.9 **27**
IV.3.9 **28**